

805-17

AUG 24 '26

CHAMBERLIN METAL WEATHER STRIP DETAILS



INDEX TO CONTENTS

PREFACE	Page	3
-------------------	------	---

DOUBLE-HUNG WINDOWS

EQUIPMENT "A" — $1\frac{3}{8}$ " and $1\frac{3}{4}$ " Sash	Pages	4-5
EQUIPMENT "B" — $2\frac{1}{4}$ " Sash	Pages	6-7

IN-OPENING CASEMENT WINDOWS

EQUIPMENT "D" — Interlocking and Channel	Pages	8-9
EQUIPMENT "E" — Interlocking and Extruded Brass Channel	Pages	10-11
EQUIPMENT "F" — Interlocking and Extruded Brass Double-Trough Channel	Pages	12-13
EQUIPMENT "G" — Interlocking with Metal Astragal and Channel	Pages	14-15
EQUIPMENT "H" — Visible Interlocking and Channel	Pages	16-17
EQUIPMENT "J" — Visible Interlocking and Extruded Brass Channel	Pages	18-19
EQUIPMENT "K" — Visible Interlocking and Extruded Brass Double-Trough Channel	Pages	20-21

OUT-OPENING CASEMENT WINDOWS

EQUIPMENT "M" — Interlocking	Pages	22-23
EQUIPMENT "O" — Spring Bronze	Pages	24-25

HOLLOW METAL SASH

EQUIPMENT "P"	Pages	26-27
-------------------------	-------	-------

AUSTRAL WINDOWS

EQUIPMENT "Q"	Pages	28-29
-------------------------	-------	-------

TRANSOM WINDOWS

EQUIPMENT "R" — Interlocking	Pages	30-31
EQUIPMENT "S" — Spring Bronze	Pages	32-33

DOORS

EQUIPMENT "U" — Interlocking	Pages	34-35
EQUIPMENT "V" — Spring Bronze	Pages	36-37

METAL-COVERED DOORS

EQUIPMENT "X"	Pages	38-39
EQUIPMENT "Y" — Visible	Pages	40-41

DOOR BOTTOMS

EQUIPMENT "Z"	Pages	42-43
-------------------------	-------	-------

CALKING

CHAMBERLIN CALKING TREATMENTS for Window and Door Frames, etc.	Page	44
CHAMBERLIN TREATMENTS for Elsewhere Leakages	Page	45

GAUGE TABLES

ZINC STANDARD GAUGES	Page	46
BROWN AND SHARPE GAUGES (B. & S.)	Page	46

BRANCHES

CHAMBERLIN SALES AND SERVICE BRANCHES IN THE UNITED STATES	Page	47
--	------	----

PREFACE

THE INFORMATION contained in this book has been accumulated for the sole purpose of giving the architect complete information on standard methods of equipping windows and doors with Chamberlin Metal Weather Strip. There are, of course, other types of openings for which a standard equipment has been designed. For these we gladly furnish details upon request.

The gauges of the different strips are those we use on a majority of installations (based on 32 years experience). Where the architect desires heavier or lighter metal, it is only necessary to specify the gauge or the thickness of the metal. Chamberlin can be furnished in any standard gauge. Specially designed equipment is available wherever conditions do not allow the installation of the regular equipment.

MATERIAL — Zinc is commonly used for double-hung windows, the sides of casements and of interlocking doors. Bronze has all the qualities of zinc with the added one of attractiveness. We recommend it where its appearance blends with decorations and furnishings.

Brass has come to be the accepted threshold. It combines weather protection with long life and at the same time adds to the appearance.

We recommend for entrance doors the wide brass sills No. 35 and No. 16. They add the finishing touch frequently necessary to set up a carefully-planned entrance.

INSIDE DOOR BOTTOMS — During sleeping hours, bedroom doors are virtually outside doors. The space underneath is usually $\frac{3}{4}$ -inch and it is through this opening that cold air blows, chilling the rest of the house. Chamberlin Inside Door Bottoms work automatically, sealing this opening when the door is closed and remaining clear of rugs and flush with the bottom of the door when open. They are needed on bathroom and attic doors to prevent heat loss from the bathroom and the escape of warm air into the attic. They are also necessary on basement and closet doors to eliminate dust circulation; on doors in schools, dormitories, offices, corridors and private rooms.

CALKING — Actual engineering tests prove that on ordinary construction the space between frames and the masonry allows almost as much in-leakage as those spaces which are ordinarily weather stripped. Chamberlin calking should be used around all frames (see page 44).

INSTALLATION — To insure a uniformity of installation and results, all Chamberlin equipments (Weather Strips, Calking, Thresholds and Automatic Bottoms) are installed only by mechanics in the direct employ of the Chamberlin Metal Weather Strip Company. The equipments we regularly use are recommended. Our recommendations are guided by more than thirty years of practical experience and by experimentation with hundreds of accumulated weather strip designs. Yet, even with a correct design, installation is at least equally as important in order to obtain uniformly satisfactory results. The Chamberlin branch system of direct installation was built up for the sole purpose of insuring consistently dependable results.

SERVICE — Although in the early years of this Company, a limited guarantee was given, yet Chamberlin Service as reflected in our present guarantee is today available for every purchase regardless of date of installation.

GUARANTEE — The following guarantee (retroactive to all former purchasers) is now given with every installation of Chamberlin Metal Weather Strips: *"We agree to correct any defects due to imperfect material or workmanship, under normal usage during the life of the building."*

SPECIFICATIONS — A General and a Descriptive Specification are given for each type of equipment. The following is suggested for General Specification where the architect prefers to include all weather strip work in one paragraph:

All outside windows and doors shall be equipped with Chamberlin Metal Weather Strips as follows: Type — for Double-Hung windows; Type — for In-opening Casement Windows; Type — for Out-opening Casement Windows; and so on.

All sleeping room, bathroom, closet, attic, and inside basement doors shall be equipped with Chamberlin Automatic Inside Door Bottoms.

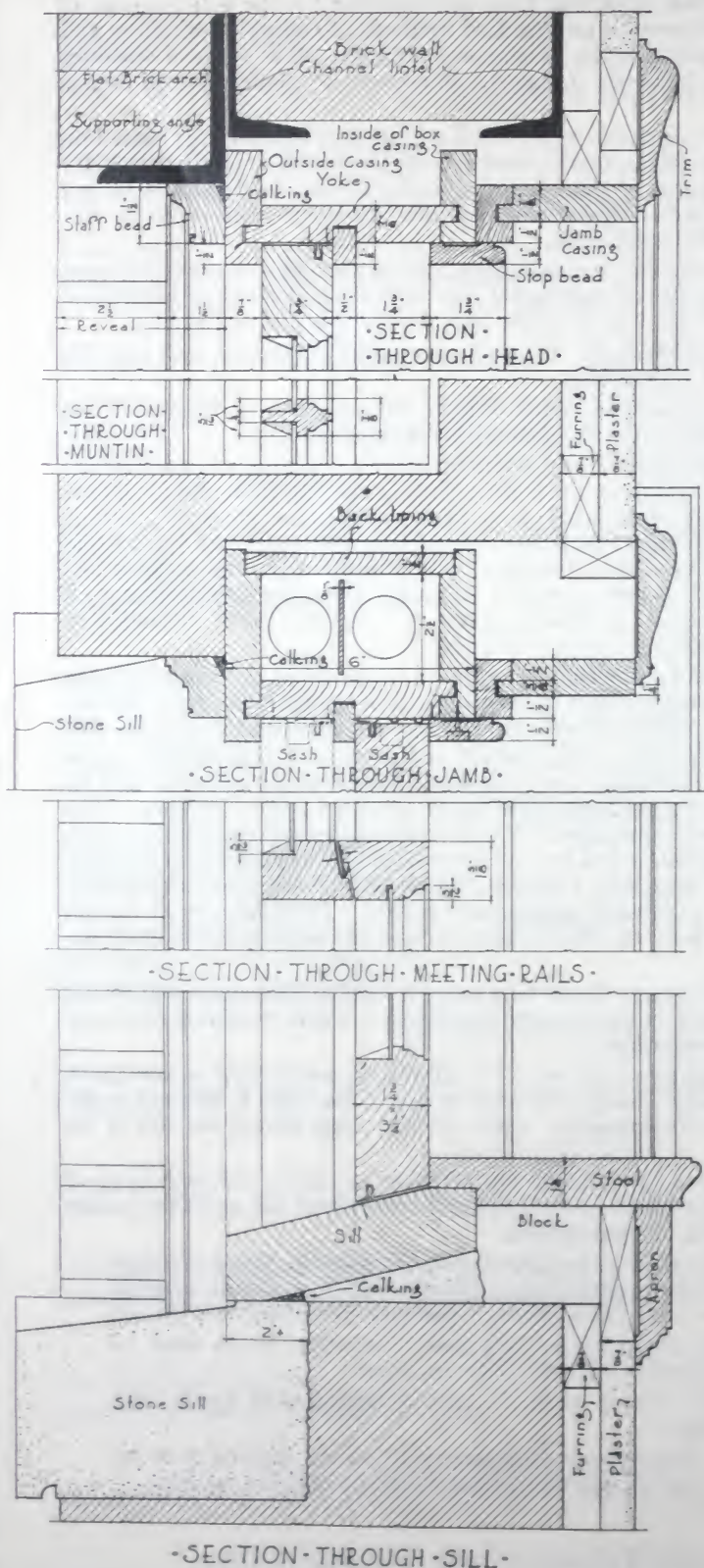
All outside window and door frames shall be calked behind staff beads with Chamberlin Calking Compound.

All installations of Weather Strips, Door Bottoms and Calking shall be done by mechanics in the employ of the Chamberlin Metal Weather Strip Company.

Chamberlin Metal Weather Strip Company, Inc.

1 $\frac{3}{8}$ " and 1 $\frac{3}{4}$ " Sash

1 $\frac{3}{8}$ " and 1 $\frac{3}{4}$ " Sash



General Specification

ALL double-hung wood windows shall be equipped with Chamberlin Metal Weather Strips, Type "A," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

ALL double-hung wood windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

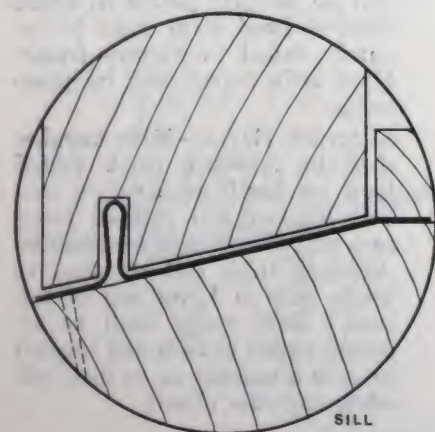
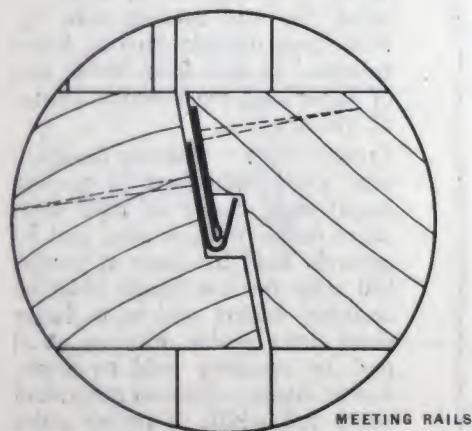
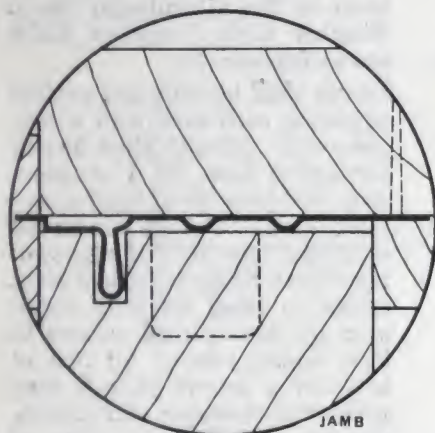
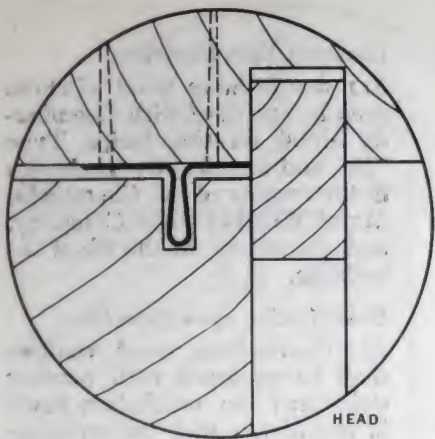
FRAME shall be equipped at sides adjoining each sash with a one-piece strip .018-inch thick having corrugated base, sill a one-piece strip .020-inch thick, head a one-piece strip .020-inch thick; all strip shall have beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base, sill strip coped over by jamb strips, corners to form sealing joints. All ribs set to enter a groove $\frac{3}{8}$ -inch deep with a side clearance of .012-inch. Grooves ploughed in edge of stiles, top and bottom rails, $\frac{3}{8}$ -inch from outside face of lower sash and $\frac{3}{8}$ -inch from inside face of upper sash, measured to center of grooves.

LOWER SASH — Narrow flange of base shall enter kerf in parting bead; wide flange of base shall enter under window stop and be securely held by same at jambs. Sill strip narrow flange shall be securely nailed and wide flange shall enter under window stool and be securely held by same.

UPPER SASH — Base of strip shall cover full width of pulley stiles and be securely nailed to same, base of head strip shall be securely nailed to window frame. Head strip coped over by jamb strips.

MEETING RAILS—Male member shall be .018-inch thick, folded back on itself, attached to outside face of top rail of lower sash and female member shall be .028-inch thick and attached to inside face of lower rail of top sash. Both strips shall be securely nailed to rails and applied in such a manner as to interlock when sash are closed.

Full-Size Details—Weather Strip Gauges—Equipment “A”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	6	10	.020
Sill, 1 $\frac{3}{8}$ " sash	7	10	.020
Sill, 1 $\frac{3}{4}$ " sash	8	10	.020
Sides, upper & lower, 1 $\frac{3}{8}$ " sash	1	9	.018
Sides, upper, 1 $\frac{3}{4}$ " sash . .	1	9	.018
Sides, lower, 1 $\frac{3}{4}$ " sash . .	2	9	.018
Meeting rail, male member	5	9	.018
Meeting rail, hook member	5	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	6	25	.0179
Sill, 1 $\frac{3}{8}$ " sash	7	25	.0179
Sill, 1 $\frac{3}{4}$ " sash	8	25	.0179
Sides, upper & lower, 1 $\frac{3}{8}$ " sash	1	25	.0179
Sides, upper, 1 $\frac{3}{4}$ " sash . .	1	25	.0179
Sides, lower, 1 $\frac{3}{4}$ " sash . .	2	25	.0179
Meeting rail, male member	5	25	.0179
Meeting rail, hook member	5	23	.0225

CHAMBERLIN EQUIPMENT “A” for 1 $\frac{3}{8}$ -inch and 1 $\frac{3}{4}$ -inch sash is the development of thirty-two years of weatherstripping and represents time-tried designs.

The tongue of the side, sill and head strips is wider at the tip than at the base, allowing for expansion and contraction. The groove clearance is .012-inch and in research laboratory tests shows an efficiency of 90% at 15 miles per hour wind velocity.

Side strips have raised bearing points (corrugations) to insure easy operation and perfect installation; they also have a shoulder bearing between the tongue and the parting strip, an exclusive feature adopted in 1925. By actual tests under varying wind pressures, this new strip is 3% more efficient in stopping in-leakage. The meeting rail strips are strong and made so that they do not easily get out of order.

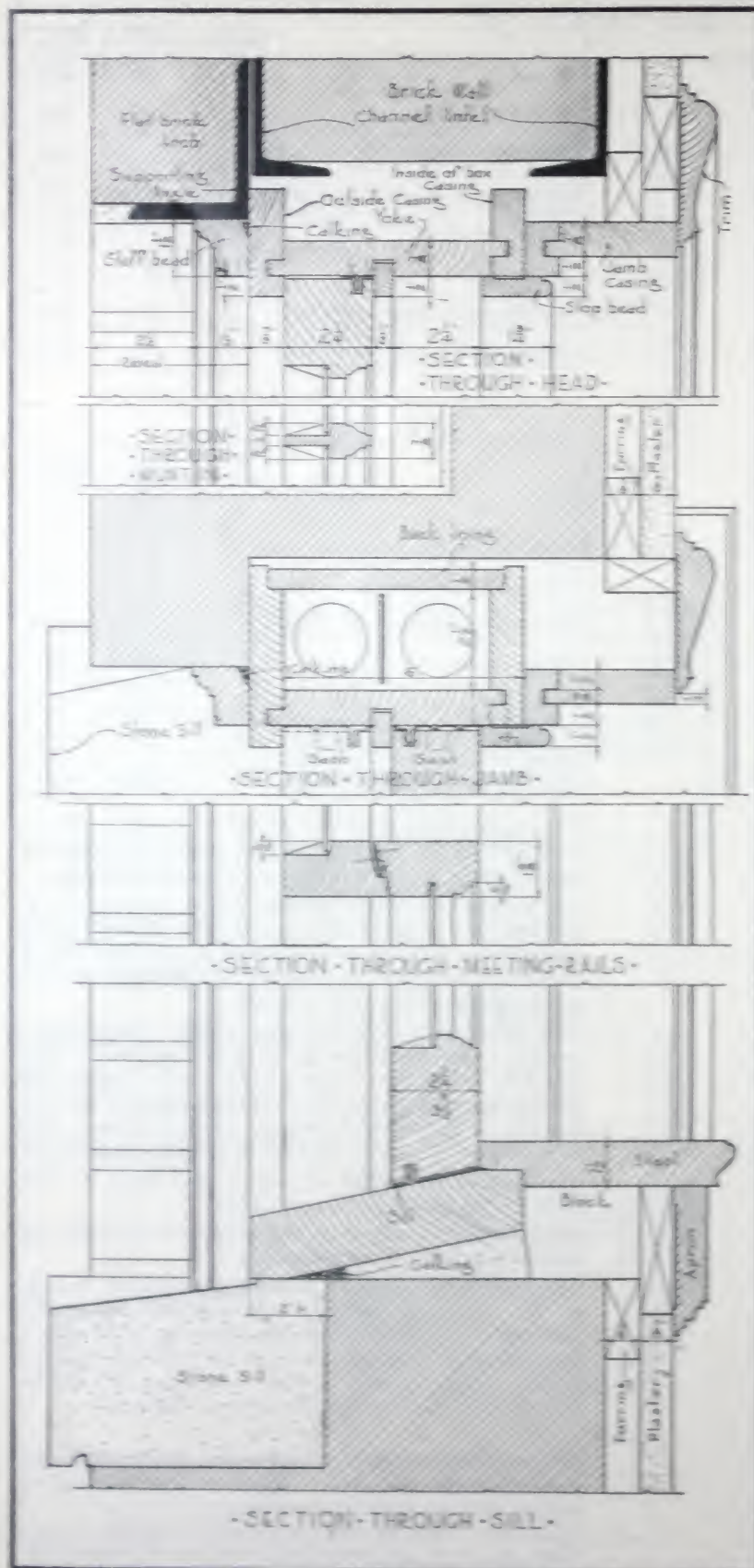
All sheet zinc is cut across the grain to avoid splitting and to obtain maximum strength.

Chamberlin equipment “A” insures a positive contact at the entire perimeter of the sash and across the meeting rails. Meeting rail blocks are installed wherever the space between the meeting rail ends and the parting beads exceeds $\frac{1}{4}$ -inch. Meeting rail blocks average 4% increase in equipment efficiency.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

21¼" Sash



General Specification

ALL double-hung wood windows shall be equipped with Chamberlin Metal Weather Strips, Type "B," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

ALL double-hung wood windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

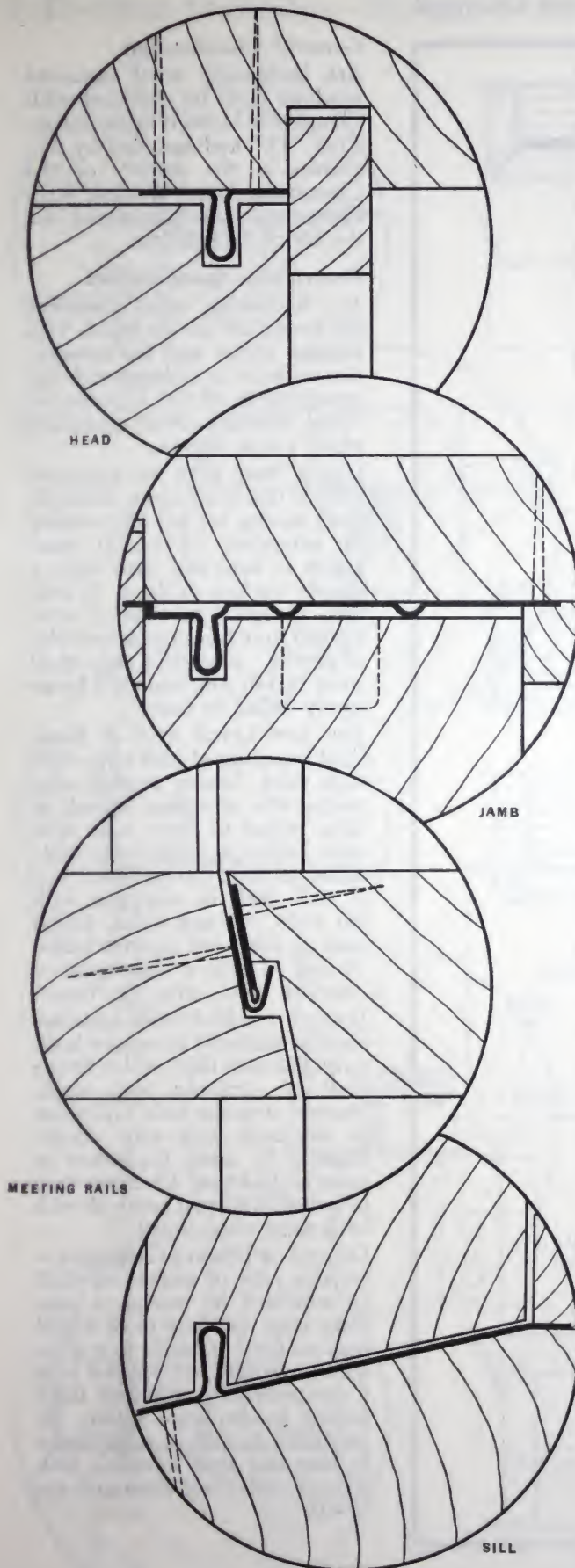
FRANCE shall be equipped at sides adjoining each sash with a one-piece strip .020-inch thick having corrugated base, sill a one-piece strip .020-inch thick, head a one-piece strip .020-inch thick; all strip shall have beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base, sill strip coped over by jamb strips, corners to form sealing joints. All ribs set to enter a groove $\frac{3}{8}$ -inch deep with a side clearance of .012-inch. Grooves ploughed in edge of stiles, top and bottom rails, $\frac{3}{8}$ -inch from outside face of lower sash and $\frac{3}{8}$ -inch from inside face of upper sash measured to center of grooves.

LOWER SASH — Narrow flange of base shall enter kerf in parting bead; wide flange of base shall enter under window stop and be securely held by same at jamb. Sill strip narrow flange shall be securely nailed and wide flange shall enter under window stool and be securely held by same.

UPPER SASH — Base of strip shall cover full width of pulley stiles and be securely nailed to same. base of bead strip shall be securely nailed to window frame. Head strip cuped over by jamb stiles.

MEETING RAILS—Male member shall be .012-inch thick, folded back on itself, attached to outside face of top rail of lower sash and female member shall be .023-inch thick and attached to inside face of lower rail of top sash. Both strips shall be securely nailed to rails and applied in such a manner as to interlock when sash are closed.

Full-Size Details—Weather Strip Gauges—Equipment “B”



Z I N C			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	76	10	.020
Sill	79	10	.020
Sides, upper	72	10	.020
Sides, lower	73	10	.020
Meeting rail, male member	5	9	.018
Meeting rail, hook member	5	12	.028

B R O N Z E			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	76	25	.0179
Sill	79	25	.0179
Sides, upper	72	25	.0179
Sides, lower	73	25	.0179
Meeting rail, male member	5	25	.0179
Meeting rail, hook member	5	23	.0225

CHAMBERLIN EQUIPMENT “B” for 2¼-inch sash is a development of the same principles used in equipment “A.” Because of the thickness of the sash, the tongue is made ⅜-inch thick.

In equipment “B” the tongue of the side, sill, and head strips is wider at the tip than at the base to allow for expansion and contraction. The side strips also have corrugations to insure a perfect installation and smooth operation of the sash.

The meeting rail equipment is identical with that in equipment “A.”

We recommend equipment “B” for 2¼-inch and heavier sash because it is more substantial.

The same care in manufacture and installation is used, the weather strip groove clearance being .012-inch, a standard used by Chamberlin for over thirty years.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "D"—In-Opening Casement Windows

Interlocking and Channel

General Specification

ALL in-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "D," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

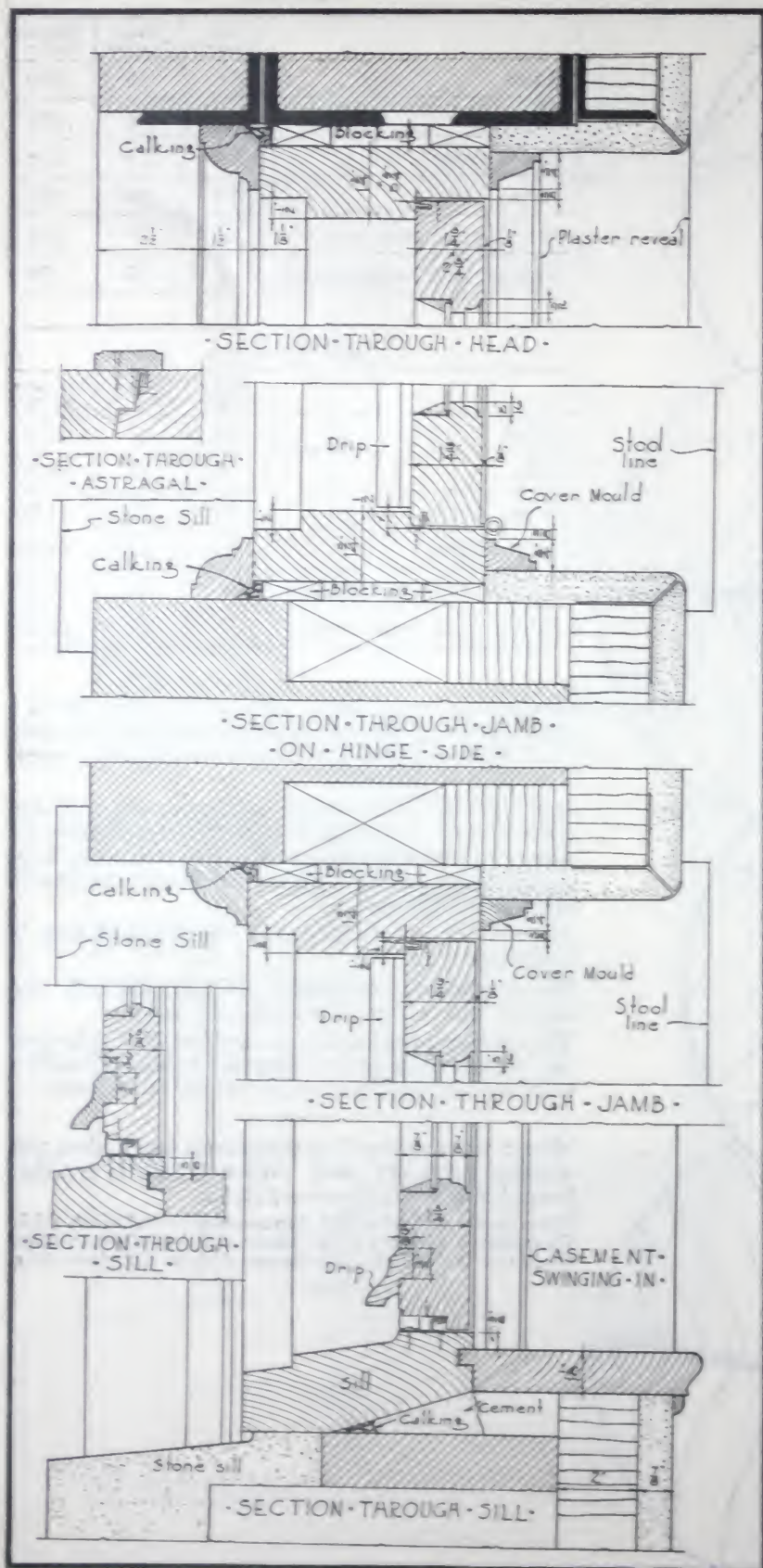
ALL in-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of stile, $\frac{3}{8}$ -inch from face of sash to center of groove. Flange of strip shall enter kerf in stop and shall be securely nailed to frame.

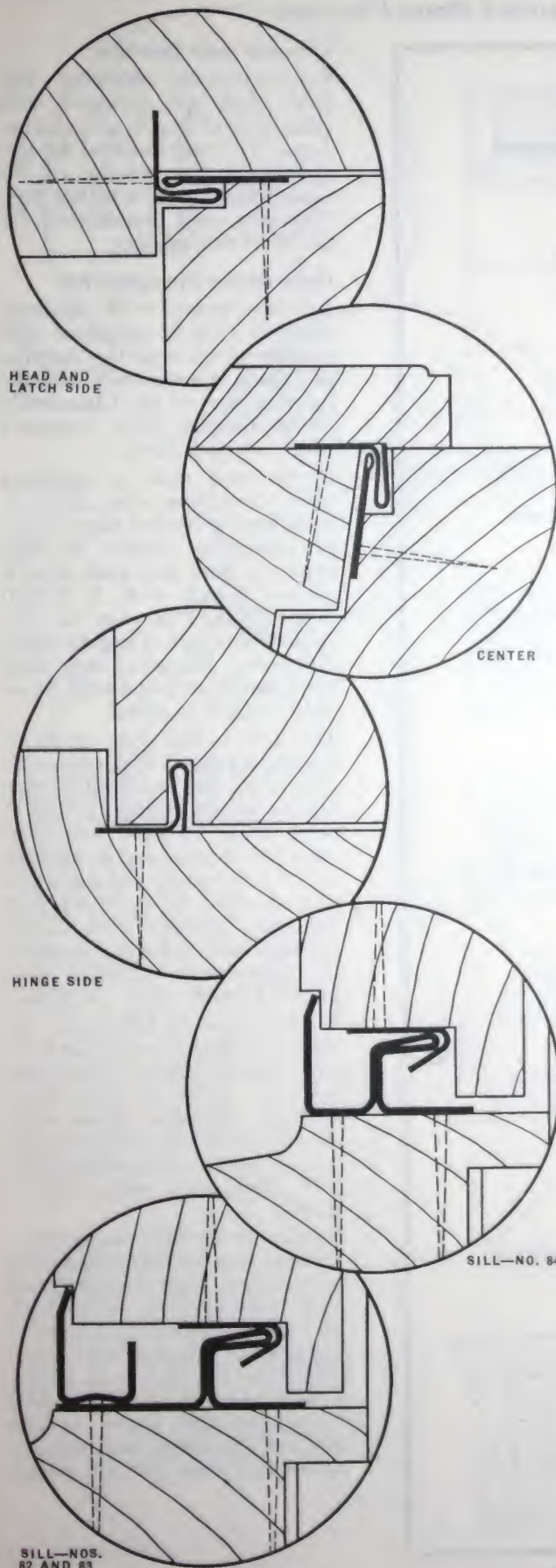
TOP AND LATCH SIDE of frame shall be equipped with strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter kerf in jamb and be securely nailed to stop; top and latch side of sash shall be equipped with flat strip .018-inch thick, folded back on itself and securely nailed to sash in such a manner as to interlock with strip on frame.

BOTTOM EDGE of lower sash rail shall be rabbeted to receive hook strip .028-inch thick; sill of frame shall be equipped with single channel strip for sash $1\frac{3}{8}$ -inches in thickness and with double channel for sash $1\frac{1}{4}$ -inches or more in thickness. Channels shall be nailed to sill and interlock with hook strip when closed.

CENTER OF DOUBLE CASEMENT—Outside edge of active leaf shall be rabbeted to receive a one-piece strip .018-inch thick folded back on itself. Outside face of inactive leaf shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall interlock with strip on active leaf when sash are closed.



Full-Size Details—Weather Strip Gauges—Equipment “D”



ZINC			
	Strip Numbers	Gauge Zinc Std	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	5 male 21	9 10	.018 .020
Hinge side	21	10	.020
Latch side	5 male 21	9 10	.018 .020
Sill, 1 $\frac{3}{8}$ " sash	84	13	.032
Sill, 1 $\frac{3}{4}$ " sash	82 83	13 14	.032 .036
Sill, hook member	5	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	5 male 21	25 25	.0179 .0179
Hinge side	21	25	.0179
Latch side	5 male 21	25 25	.0179 .0179
Sill, 1 $\frac{3}{8}$ " sash	84	20	.0319
Sill, 1 $\frac{3}{4}$ " sash	82 83	20 20	.0319 .0319
Sill, hook member	5	23	.0225

CHAMBERLIN EQUIPMENT “D” for in-opening case-ments efficiently checks in-leakage of air as well as water, a most important consideration for windows of this type.

Equipment “D” allows for expansion and contraction due to atmospheric conditions.

The combination of No. 82 and No. 83 for 1 $\frac{3}{4}$ -inch sash gives exceptionally good results against rain leakage. The No. 84 is used for 1 $\frac{3}{8}$ -inch sash because in most cases there is not room enough for the double channel, but it likewise gives a high degree of efficiency against air and water leakage.

The entire equipment is strongly made to take care of wear and tear, the metal in all cases being formed across the grain to insure maximum strength.

Where rain drips and astragals are not a part of the windows, they are made a part of the weather strip equipment.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "E"—In-Opening Casement Windows

Interlocking and Extruded Brass Channel

General Specification

ALL in-opening casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "E," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

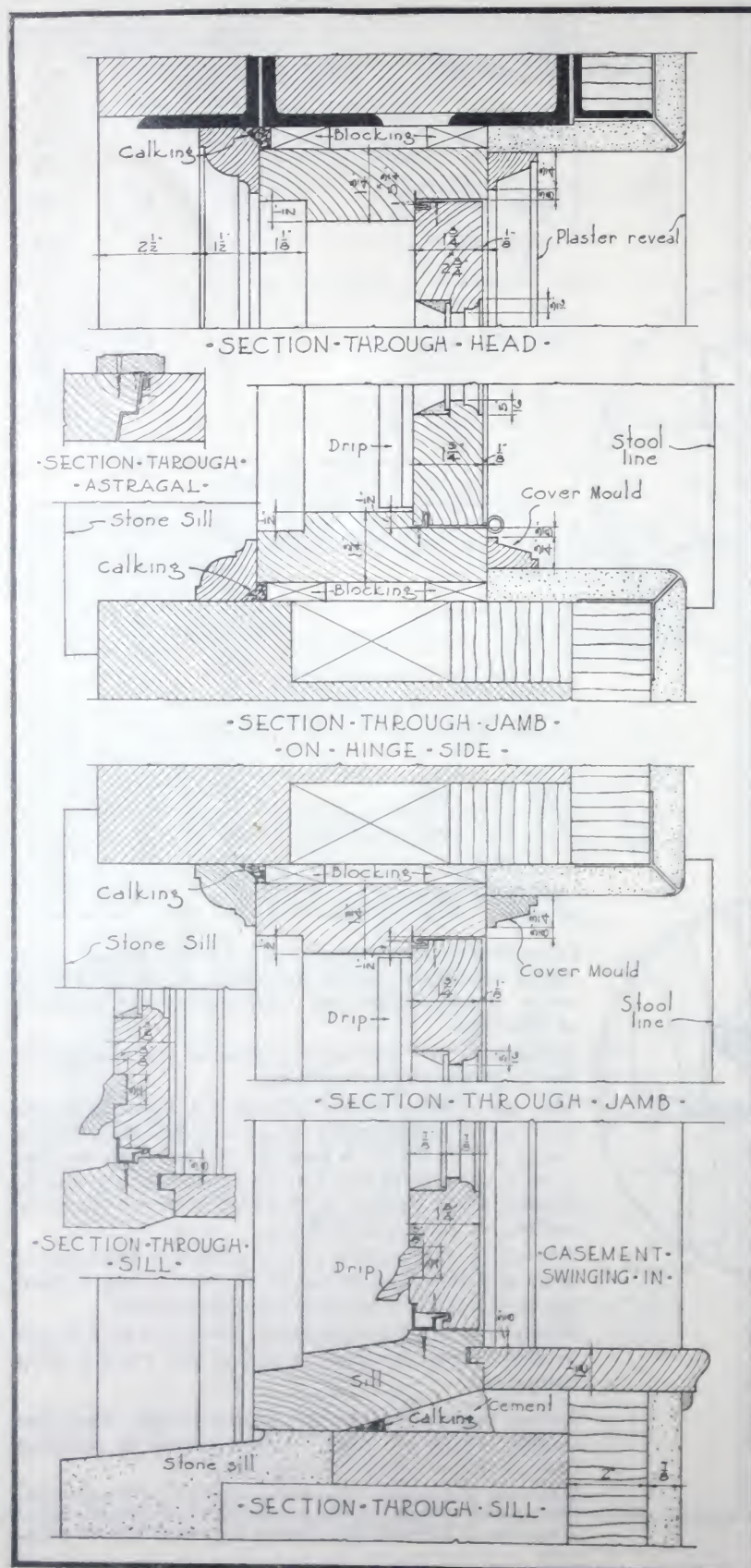
ALL in-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of stile, $\frac{3}{8}$ -inch from face of sash to center of groove. Flange of strip shall enter kerf in stop and shall be securely nailed to frame.

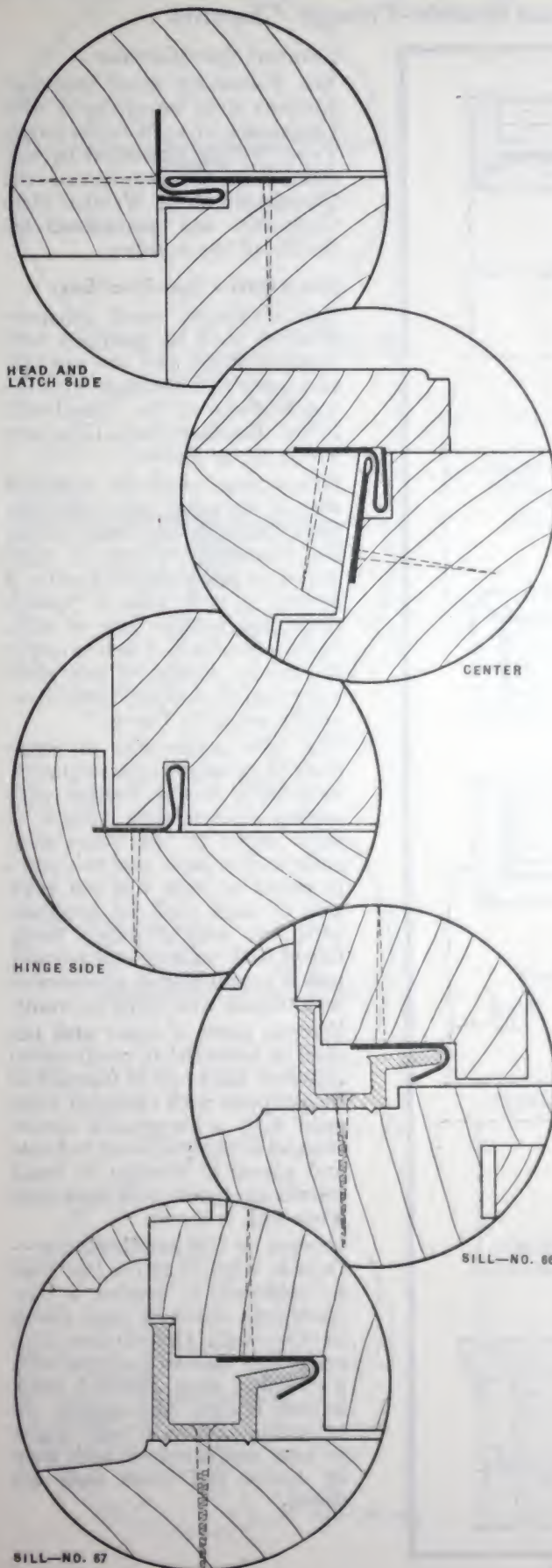
TOP AND LATCH SIDE of frame shall be equipped with strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter kerf in jamb and be securely nailed to stop; top and latch side of sash shall be equipped with flat strip .018-inch thick, folded back on itself and securely nailed to sash in such a manner as to interlock with strip on frame.

BOTTOM EDGE of lower sash rail shall be rabbeted to receive hook strip .028-inch thick; sill of frame shall be equipped with single channel extruded brass strip screwed to sill and placed in position to form an interlocking joint with hook strip when sash is closed.

CENTER OF DOUBLE CASEMENT—Outside edge of active leaf shall be rabbeted to receive a one-piece strip .018-inch thick folded back on itself. Outside face of inactive leaf shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall interlock with strip on active leaf when sash are closed.



Full-Size Details—Weather Strip Gauges—Equipment “E”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	5 male 21	9 10	.018 .020
Hinge side	21	10	.020
Latch side	5 male 21	9 10	.018 .020
Sill, 1 $\frac{3}{8}$ " sash	66	Extruded Brass	
Sill, 1 $\frac{3}{4}$ " sash	67	Extruded Brass	
Sill, hook member	5	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	5 male 21	25 25	.0179 .0179
Hinge side	21	25	.0179
Latch side	5 male 21	25 25	.0179 .0179
Sill, 1 $\frac{3}{8}$ " sash	66	Extruded Brass	
Sill, 1 $\frac{3}{4}$ " sash	67	Extruded Brass	
Sill, hook member	5	23	.0225

CHAMBERLIN EQUIPMENT "E" for in-opening case-ments is identical with equipment "D" for the head, sides and center.

Two sizes of brass channels make up this sill equipment, No. 67 being furnished for sash that are 1 $\frac{3}{4}$ -inches or more in thickness and No. 66 where the sash are 1 $\frac{3}{8}$ -inches thick.

Where a heavy strip is needed No. 66 or No. 67 will be found efficient.

The front walls are high and fit into rabbets in the outside face of the sash. The tongues are tilted upward and in connection with the hook strip on the bottom of the sash form the weather strip seal. When screwed to the wooden sill of the window, the legs make a tight fit to prevent water leakage underneath.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "F"—In-Opening Casement Windows

Interlocking and Extruded Brass Double-Trough Channel

General Specification

ALL in-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "F," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

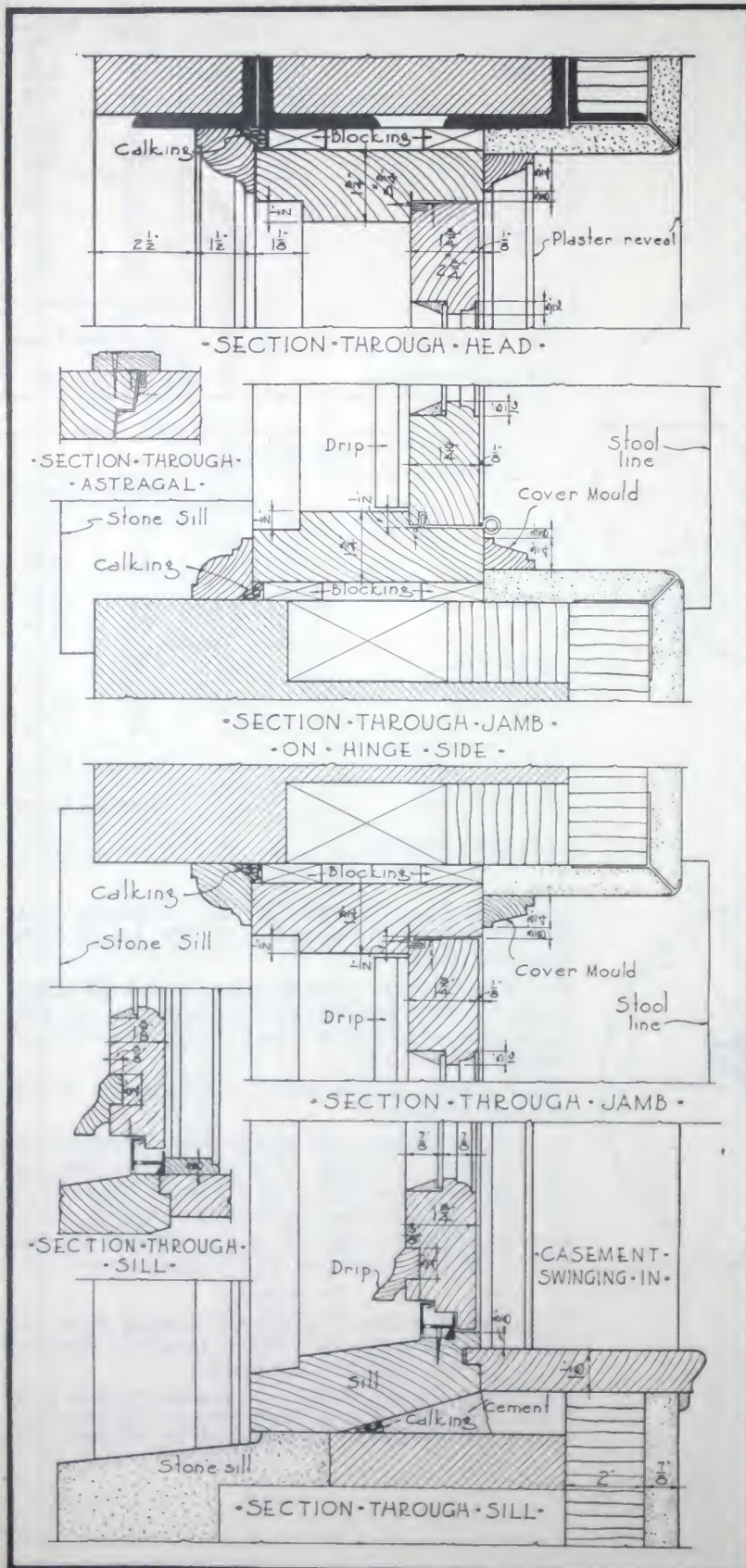
ALL in-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of stile, $\frac{3}{8}$ -inch from face of sash to center of groove. Flange of strip shall enter kerf in stop and shall be securely nailed to frame.

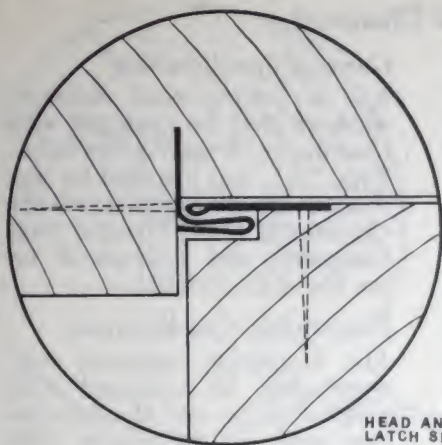
TOP AND LATCH SIDE of frame shall be equipped with strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter kerf in jamb and be securely nailed to stop; top and latch side of sash shall be equipped with flat strip .018-inch thick, folded back on itself and securely nailed to sash in such a manner as to interlock with strip on frame.

BOTTOM EDGE of lower sash rail shall be rabbeted to receive strip .020-inch thick; sill of frame shall be equipped with extruded brass strip with a superposed double channel securely screwed to frame and placed in position to make interlocking joint with hook strip when sash is closed.

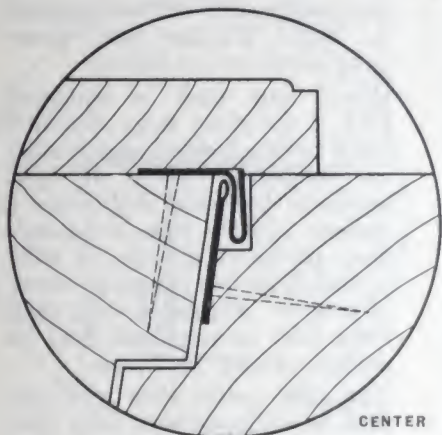
CENTER OF DOUBLE CASEMENT—Outside edge of active leaf shall be rabbeted to receive a one-piece strip .018-inch thick folded back on itself. Outside face of inactive leaf shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and interlock with strip on active leaf when sash are closed.



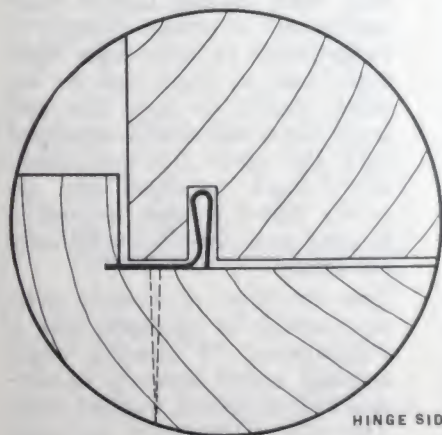
Full-Size Details—Weather Strip Gauges—Equipment “F”



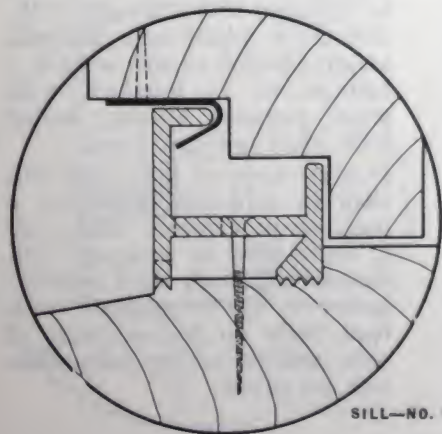
HEAD AND
LATCH SIDE



CENTER



HINGE SIDE



SILL—NO. 68-A

ZINC

	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	5 male 21	9 10	.018 .020
Hinge side	21	10	.020
Latch side	5 male 21	9 10	.018 .020
Sill	68A	Extruded Brass	
Sill, hook member	15	10	.020

BRONZE

	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	5 male 21	25 25	.0179 .0179
Hinge side	21	25	.0179
Latch side	5 male 21	25 25	.0179 .0179
Sill	68A	Extruded Brass	
Sill, hook member	15	25	.0179

CHAMBERLIN EQUIPMENT “F” for in-opening casements is identical with equipments “D” and “E” for the head, sides and center.

When equipment “F” is furnished it includes the No. 68-A sill which is a double-trough channel. The channel of this sill is back of the weather strip seal.

Under certain conditions, wind will drive rain into the corners and centers of casements; the channel back of the weather strip seal allows for this seepage to drop into the upper channel, and then by means of weep holes, into the lower channel.

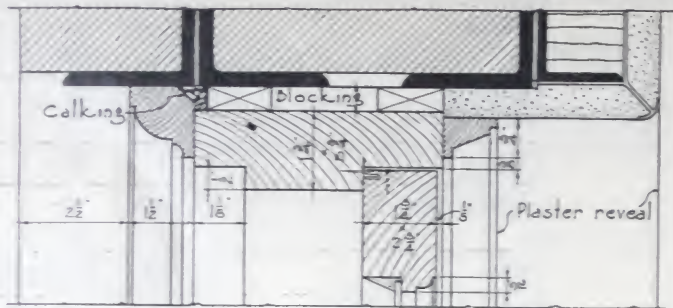
Weep holes are cut in the front wall of the No. 68-A channel to allow for this water seepage to drain out on the sill.

The No. 68-A channel is the result of years of experiment and is a development adopted in 1924.

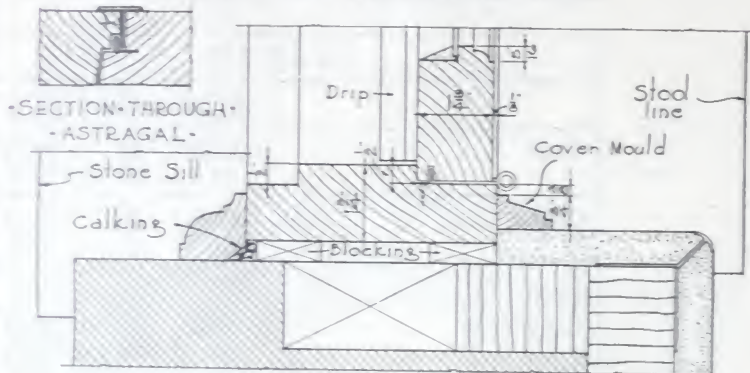
METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.

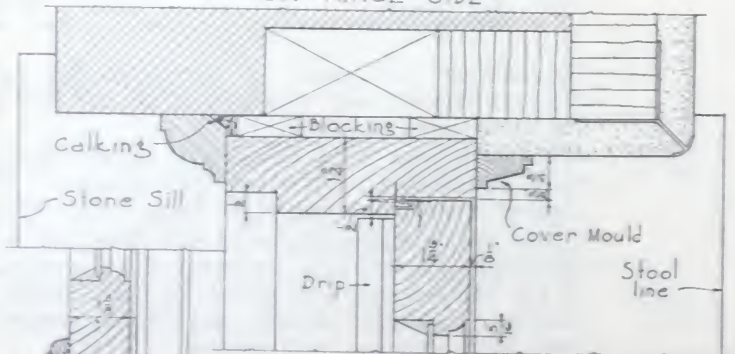
Chamberlin Equip't "G"—In-Opening Casement Windows Interlocking with Metal Astragal and Channel



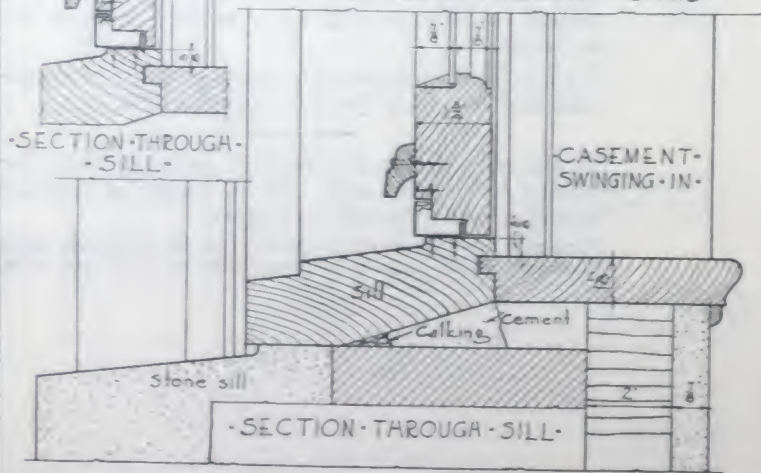
SECTION - THROUGH - HEAD -



SECTION THROUGH JAMB
ON HINGE SIDE



• SECTION • THROUGH • JAMB •



-SECTION-THROUGH-SILL-

General Specification

ALL in-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "G", and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

ALL in-opening casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

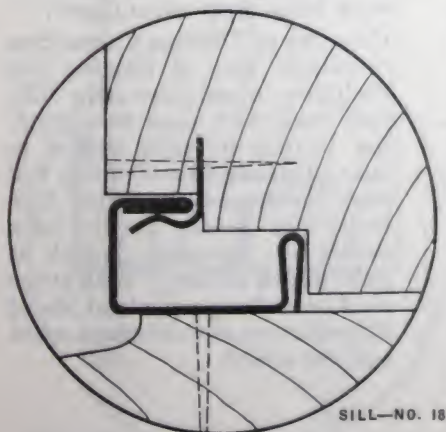
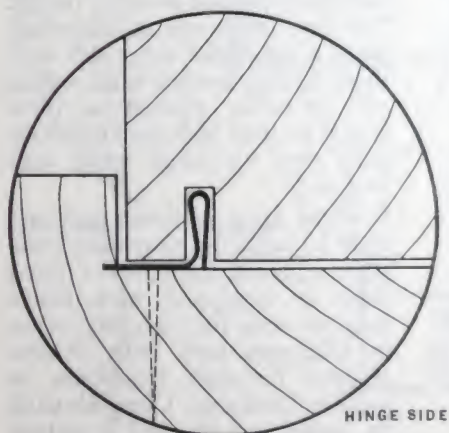
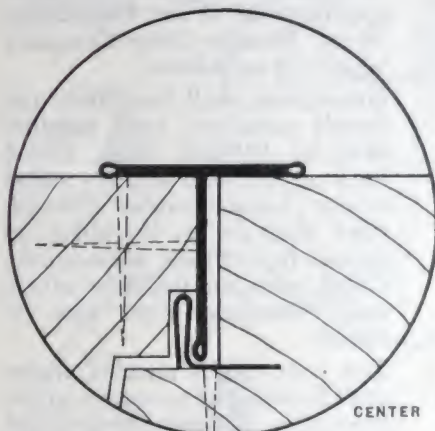
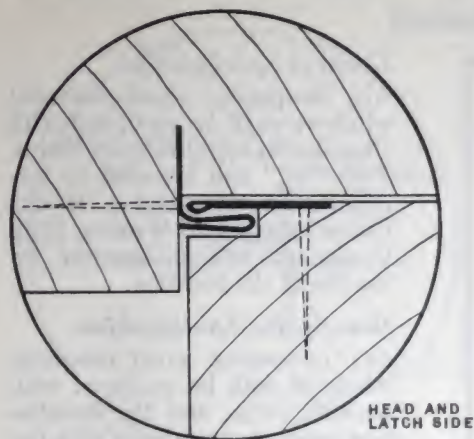
HINGE SIDE shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of stile, $\frac{3}{8}$ -inch from face of sash to center of groove. Flange of strip shall enter kerf in stop and shall be securely nailed to frame.

TOP AND LATCH SIDE of frame shall be equipped with strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter kerf in jamb and be securely nailed to stop; top and latch side of sash shall be equipped with flat strip .018-inch thick, folded back on itself and securely nailed to sash in such a manner as to interlock with strip on frame.

THE CENTERS of double casements shall be equipped with a combination "T"-shaped metal astragal nailed securely to outside face of stile of inactive sash. The stile of the active leaf shall be equipped with a flat strip .018-inch thick, folded back on itself, securely nailed to stile in such a manner as to interlock with metal astragal, making sealing joint when sash are closed.

BOTTOM EDGE of lower sash rail shall be rabbeted to receive a hook strip .028-inch thick; sill of frame shall be equipped with channel .028-inch thick securely nailed to sill to interlock with hook strip on bottom edge of sash, making sealing joint when sash are closed.

Full-Size Details—Weather Strip Gauges—Equipment “G”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	20 21	10 10	.020 .020
Hinge side	21	10	.020
Latch side	5 male 21	9 10	.018 .020
Sill	18	12	.028
Sill, hook member	19	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	20 21	25 25	.0179 .0179
Hinge side	21	25	.0179
Latch side	5 male 21	25 25	.0179 .0179
Sill	18	23	.0225
Sill, hook member	19	23	.0225

CHAMBERLIN EQUIPMENT “G” for in-opening casements has been designed to meet the unusual condition of expansion and contraction.

The equipment for the head and hinge sides, as well as for the latch side of single casements is identical with that used in equipments “D,” “E” and “F.” That sill equipment consists of a special large trough with hook which allows for expansion of the wood on the lower rail.

With equipment “G” there is furnished a special “T” astragal made of metal. This special strip not only takes the place of the astragal, but it is also part of the weather strip equipment and interlocks with the metal strip on the active leaf.

The “T” astragal made of metal can also be furnished on equipments “D,” “E,” “F,” “H,” “J” and “K.”

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "H"—In-Opening Casement Windows

Visible Interlocking and Channel

General Specification

ALL in-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "H," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

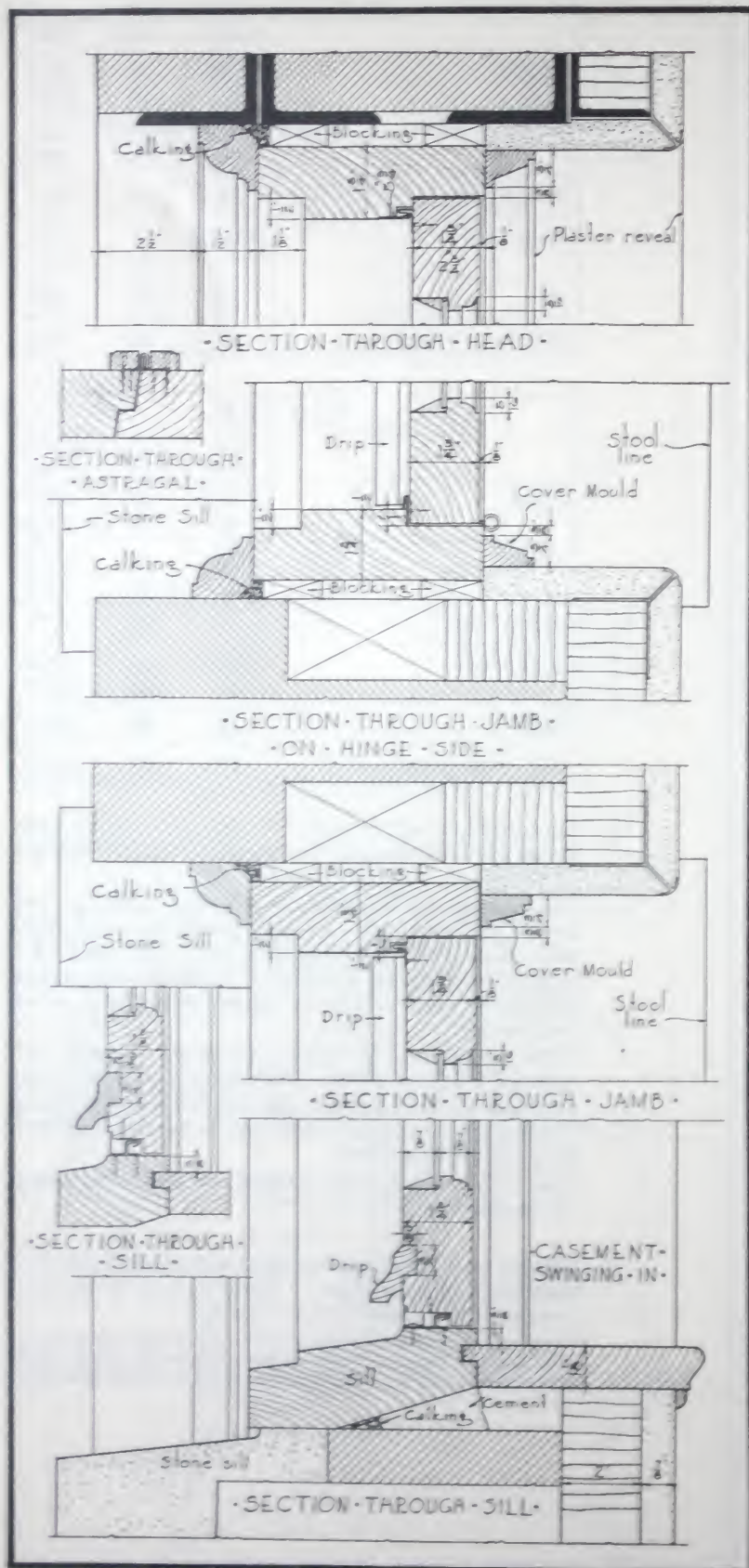
ALL in-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall have male and female members, male member shall be .018-inch thick, folded back on itself and securely nailed to stop; female member .028-inch thick shall be set in rabbet on outside face of sash, and securely nailed; male and female members shall interlock when sash is closed.

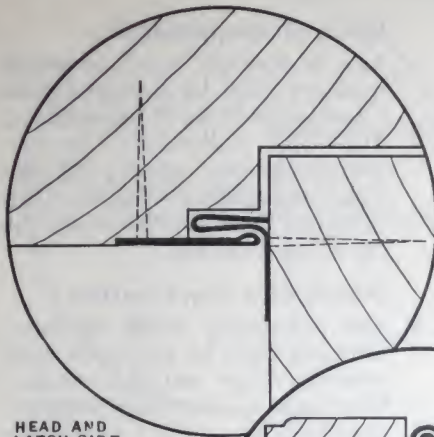
TOP AND LATCH SIDE of frame shall be rabbeted to receive a one-piece strip .018-inch thick folded back on itself and securely nailed. Top and latch side of sash shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall interlock with strip on frame when sash is closed.

BOTTOM EDGE of lower sash rail shall be rabbeted to receive hook strip .028-inch thick; sill of frame shall be equipped with single channel strip for sash $1\frac{3}{8}$ -inches in thickness and with double channel for sash $1\frac{3}{4}$ -inches or more in thickness. Channels shall be nailed to sill and interlock with hook strip when closed.

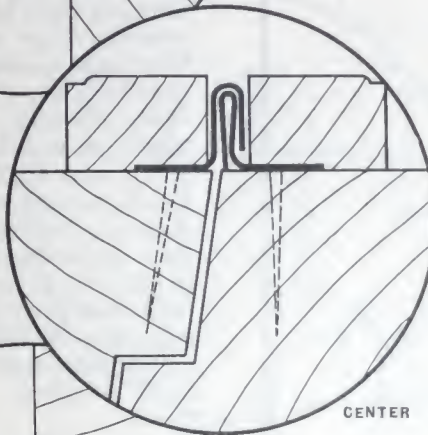
CENTERS OF DOUBLE CASEMENTS —Outside face of inactive leaf shall have a one-piece strip .028-inch thick with open rib extending $\frac{3}{8}$ -inch at right angles to base. Outside face of active leaf shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base. Both strips shall be securely nailed and placed in position so as to interlock when sash is closed.



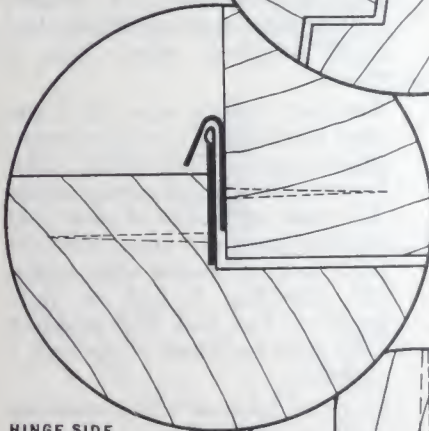
Full-Size Details—Weather Strip Gauges—Equipment “H”



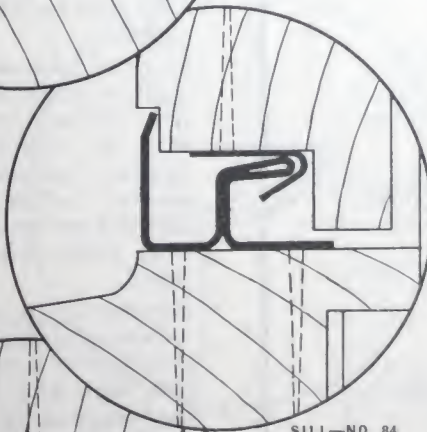
HEAD AND LATCH SIDE



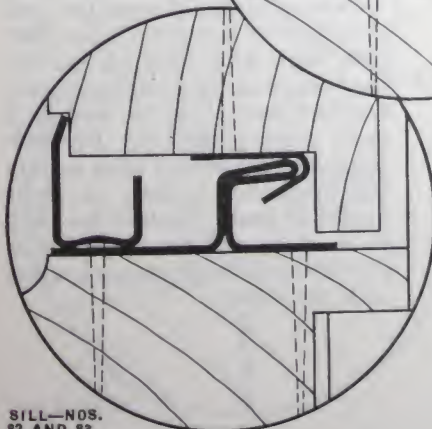
CENTER



HINGE SIDE



SILL—NO. 84



SILL—NOS.
82 AND 83

ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	4 hook 21	12 10	.028 .020
Hinge side	5 male 5 hook	9 12	.018 .028
Latch side	5 male 21	9 10	.018 .020
Sill, 1 $\frac{3}{8}$ " sash	84	13	.032
Sill, 1 $\frac{3}{4}$ " sash	82 83	13 14	.032 .036
Sill, hook member	5	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	4 hook 21	23 25	.0225 .0179
Hinge side	5 male 5 hook	25 23	.0179 .0225
Latch side	5 male 21	25 25	.0179 .0179
Sill, 1 $\frac{3}{8}$ " sash	84	20	.0319
Sill, 1 $\frac{3}{4}$ " sash	82 83	20 20	.0319 .0319
Sill, hook member	5	23	.0225

CHAMBERLIN EQUIPMENT “H,” for in-opening casements has been designed to meet the unusual demand for protection against possible heavy water leakage.

In this equipment the weather strip is not concealed, but is placed on the outside edges of the sash to keep the weather strip seal as far to the outside as possible. The rain is kept on the outside of the sash.

Where there is driving rain and where there is danger of an unusual amount of expansion and contraction, the outside interlocking equipment for casements is recommended.

The sill equipment on equipment “G” is identical with the sill in equipment “D”; the No. 82 and No. 83 double channels are for sash that are 1 $\frac{3}{4}$ -inches or more in thickness, while the No. 84 is for sash that are 1 $\frac{3}{8}$ -inches in thickness.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "J"—In-Opening Casement Windows

Visible Interlocking and Extruded Brass Channel

General Specification

ALL in-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "J," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

ALL in-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

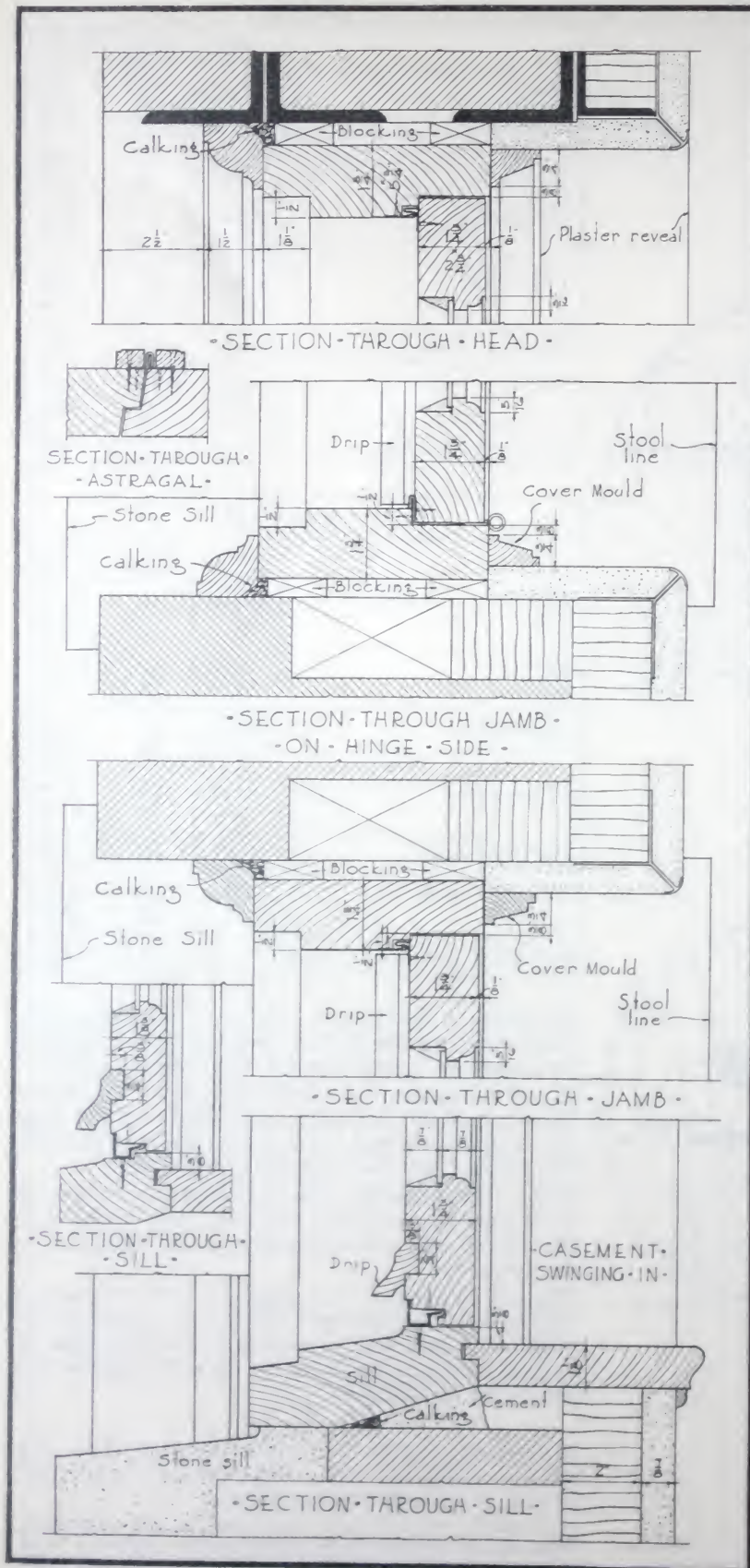
HINGE SIDE shall have male and female members, male member shall be .018-inch thick, folded back on itself and securely nailed to stop; female member .028-inch thick shall be set in rabbet on outside face of sash and securely nailed; male and female members shall interlock when sash is closed.

TOP AND LATCH SIDE of frame shall be rabbeted to receive a one-piece strip .018-inch thick, folded back on itself and securely nailed. Top and latch side of sash shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall interlock with strip on frame when sash is closed.

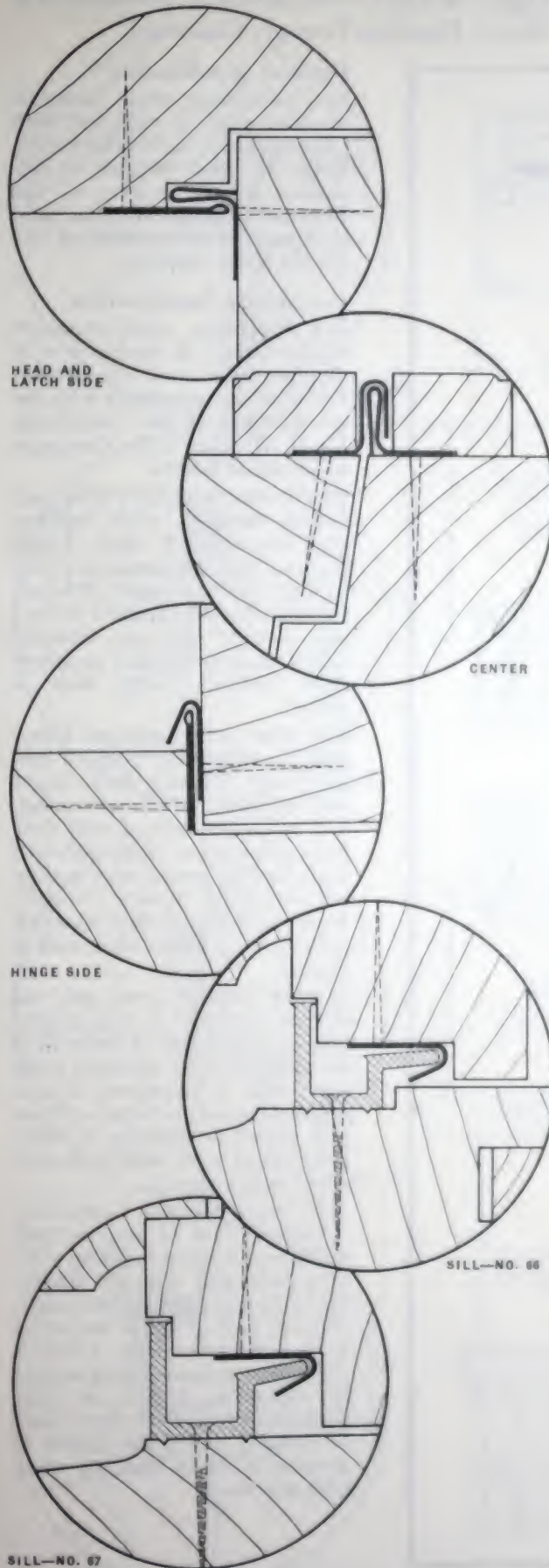
BOTTOM EDGE of lower sash rail shall be rabbeted to receive hook strip .028-inch thick; sill of frame shall be equipped with single channel extruded brass strip screwed to sill and placed in position to form an interlocking joint with hook strip when sash is closed.

CENTER OF DOUBLE CASEMENTS

—Outside face of inactive leaf shall have a one-piece strip .028-inch thick with open rib extending $\frac{3}{8}$ -inch at right angles to base. Outside face of active leaf shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base. Both strips shall be securely nailed and placed in position and shall interlock when sash are closed.



Full-Size Details—Weather Strip Gauges—Equipment “J”



ZINC

	Strip Numbers	Gauge Zinc Std	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	4 hook 21	12 10	.028 .020
Hinge side	5 male 5 hook	9 12	.018 .028
Latch side	5 male 21	9 10	.018 .020
Sill, 1 $\frac{3}{8}$ " sash	66	Extruded Brass	
Sill, 1 $\frac{3}{4}$ " sash	67	Extruded Brass	
Sill, hook member	5	12	.028

BRONZE

	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	4 hook 21	23 25	.0225 .0179
Hinge side	5 male 5 hook	25 23	.0179 .0225
Latch side	5 male 21	25 25	.0179 .0179
Sill, 1 $\frac{3}{8}$ " sash	66	Extruded Brass	
Sill, 1 $\frac{3}{4}$ " sash	67	Extruded Brass	
Sill, hook member	5	23	.0225

CHAMBERLIN EQUIPMENT "J" for in-opening casements is identical with equipment "H" for the head, sides and center. For unusual conditions of water leakage the outside interlocking equipment is recommended.

The sill equipment is identical with that of equipment "E," that is, the No. 66 extruded brass channel for sash that are 1 $\frac{3}{8}$ -inches thick and the No. 67 for sash that are 1 $\frac{3}{4}$ -inches thick.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "K"—In-Opening Casement Windows

Visible Interlocking and Extruded Brass Double-Trough Channel

General Specification

ALL in-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "K," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

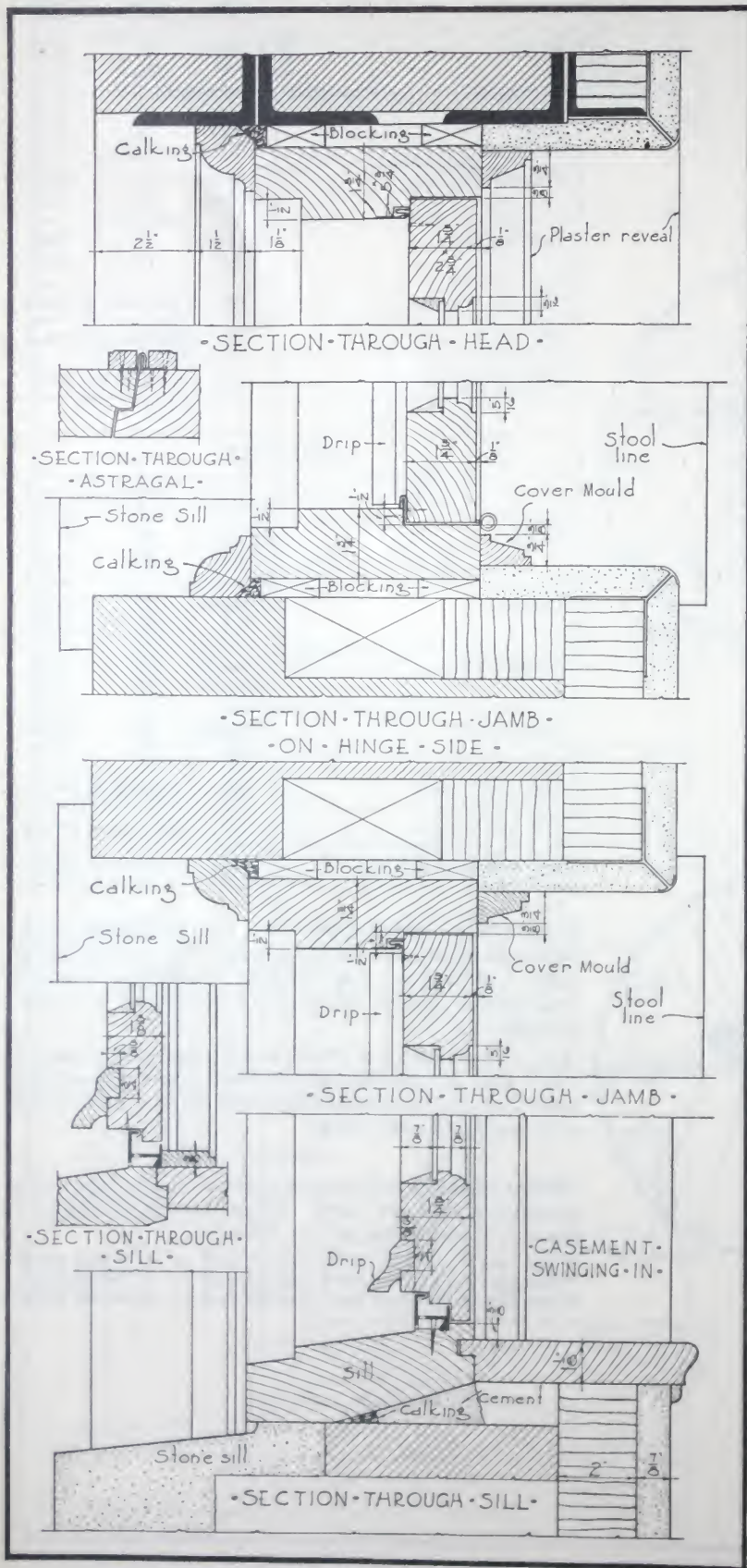
ALL in-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall have male and female members, male member shall be .018-inch thick, folded back on itself and securely nailed to stop; female member .028-inch thick shall be set in rabbet on outside face of sash and securely nailed; male and female members shall interlock when sash is closed.

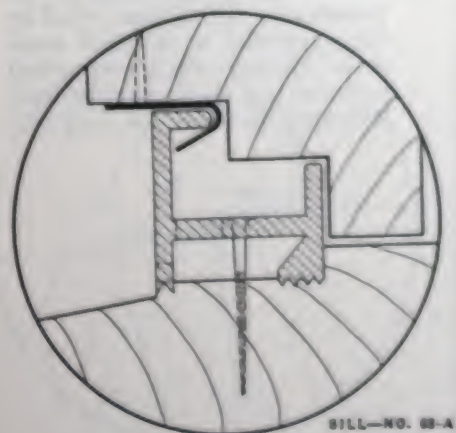
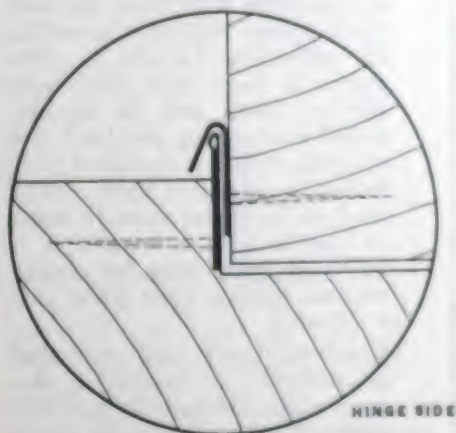
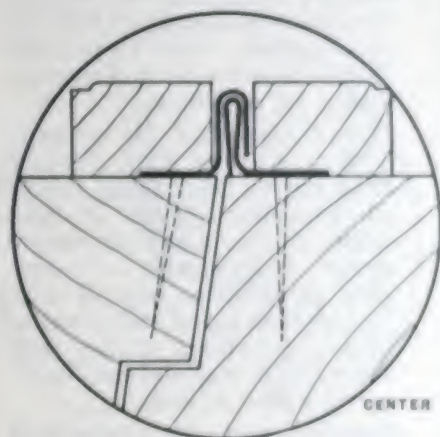
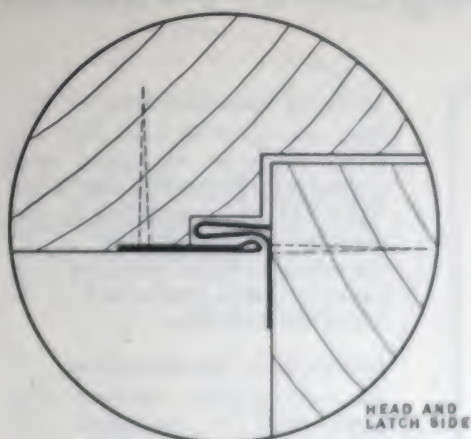
TOP AND LATCH SIDE of frame shall be rabbeted to receive a one-piece strip .018-inch thick, folded back on itself and securely nailed. Top and latch side of sash shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall interlock with strip on frame when sash is closed.

BOTTOM EDGE of lower sash rail shall be rabbeted to receive strip .020-inch thick; sill of frame shall be equipped with extruded brass strip with a superposed double channel securely screwed to frame and placed in position to make interlocking joint with hook strip when sash is closed.

CENTERS OF DOUBLE CASEMENTS—Outside face of inactive leaf shall have a one-piece strip .028-inch thick with open rib extending $\frac{3}{8}$ -inch at right angles to base. Outside face of active leaf shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base. Both strips shall be securely nailed and placed in position so as to interlock when sash are closed.



Full-Size Details—Weather Strip Gauges—Equipment “K”



ZINC

	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	4 hook 21	12 10	.028 .020
Hinge side	5 male 5 hook	9 12	.018 .028
Latch side	5 male 21	9 10	.018 .020
Sill	68A	Extruded Brass	
Sill, hook member	15	10	.020

BRONZE

	Strip Numbers	Gauge (D. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	4 hook 21	23 25	.0225 .0179
Hinge side	5 male 5 hook	25 23	.0179 .0225
Latch side	5 male 21	25 25	.0179 .0179
Sill	68A	Extruded Brass	
Sill, hook member	15	25	.0179

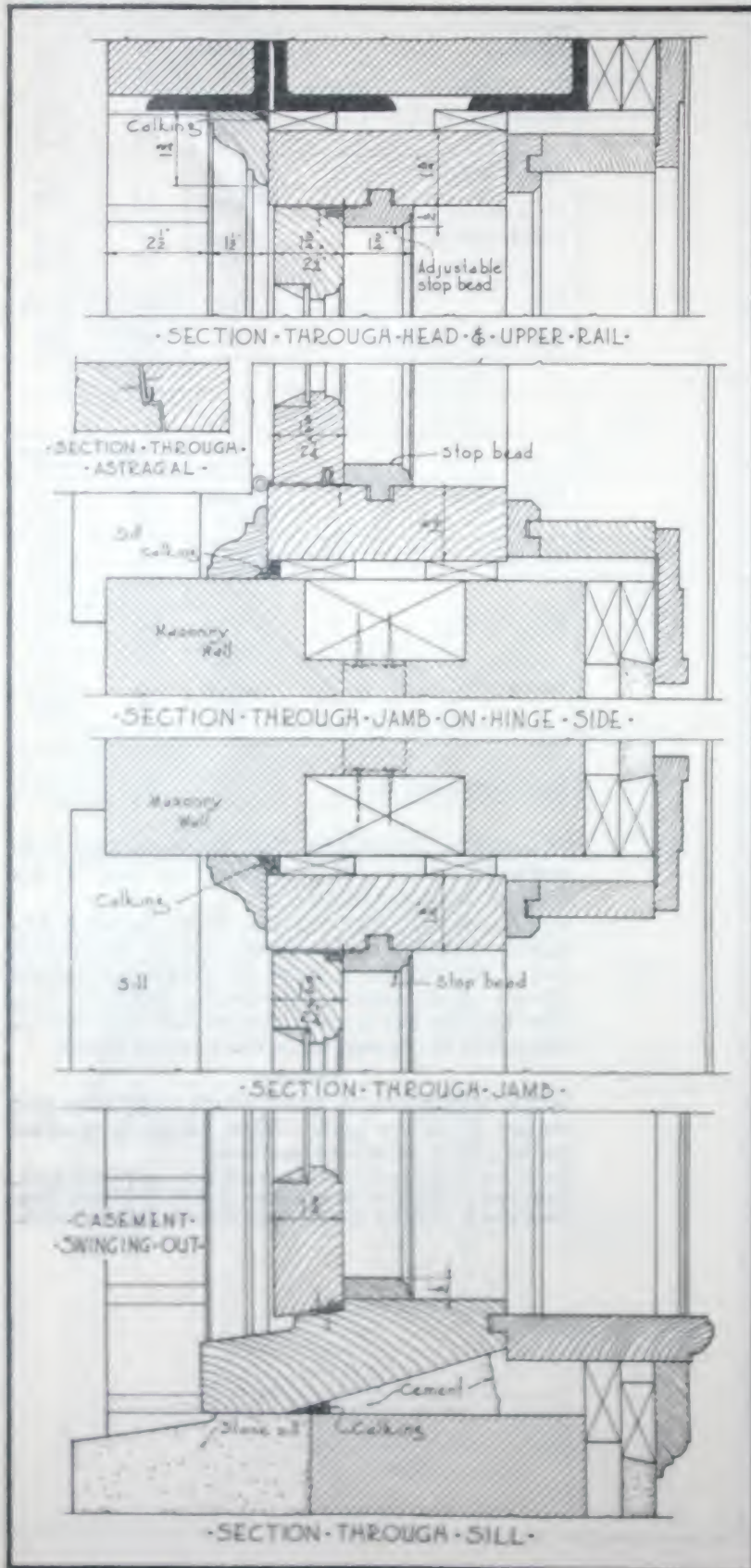
CHAMBERLIN EQUIPMENT “K” for in-opening casements is identical with equipment “H” and “J” for the head, sides and center.

With equipment “K” the No. 68-A channel is furnished. This is a double-trough channel which takes care of any seepage of water by allowing it to drain into an upper channel and then by means of weep holes to drain into a lower channel and then through slots cut in the outside leg to drain out on the sill.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equip't "M"—Out-Opening Casem't Windows Interlocking



General Specification

ALL out-opening casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "M," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

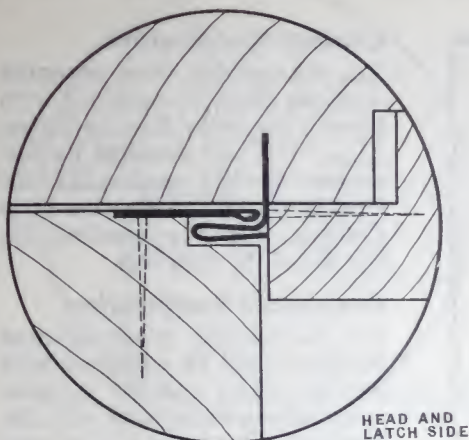
ALL out-opening casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of stile, $\frac{3}{8}$ -inch from face of sash to center of groove. Flange of strip shall enter kerf in stop and shall be securely nailed to frame.

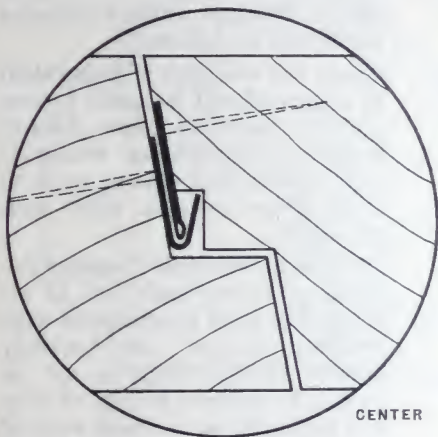
TOP AND LATCH SIDE of frame shall be equipped with strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter kerf in jamb and be securely nailed to stop; top and latch side of sash shall be equipped with flat strip .018-inch thick, folded back on itself and securely nailed to sash in such a manner as to interlock with strip on frame, making sealing joint when sash is closed.

EDGE of lower sash rail shall be rabbeted to receive a one-piece strip .018-inch thick, folded back on itself and securely nailed to sash rail. Sill of frame shall be equipped with a one-piece hook strip .028-inch thick and nailed to frame and shall interlock with strip on sash when sash is closed.

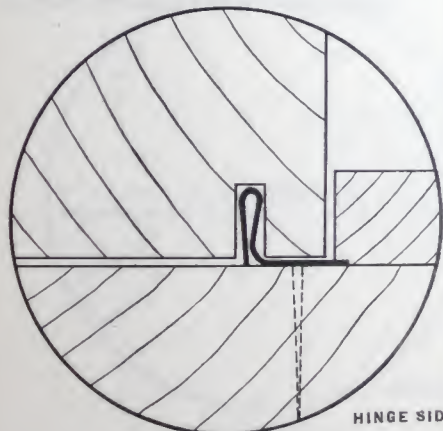
Full-Size Details—Weather Strip Gauges—Equipment “M”



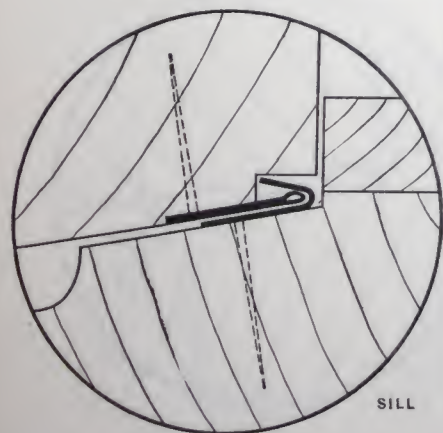
HEAD AND LATCH SIDE



CENTER



HINGE SIDE



SILL

ZINC

	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	5 male 21	9 10	.018 .020
Hinge side	21	9	.018
Latch side	5 male 21	9 10	.018 .020
Sill	5 male 5 hook	9 12	.018 .028

BRONZE

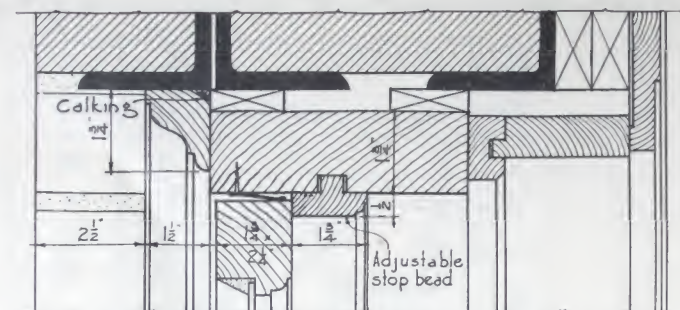
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	5 male 21	25 25	.0179 .0179
Hinge side	21	25	.0179
Latch side	5 male 21	25 25	.0179 .0179
Sill	5 male 5 hook	25 23	.0179 .0225

CHAMBERLIN EQUIPMENT “M” for out-opening casements is a strong, interlocking metal equipment, similar to that used on in-opening casements. Most out-opening casements, however, are set in to prevent water leakage; therefore, instead of furnishing a trough for the sill an interlocking strip is furnished, which is set on the window sill.

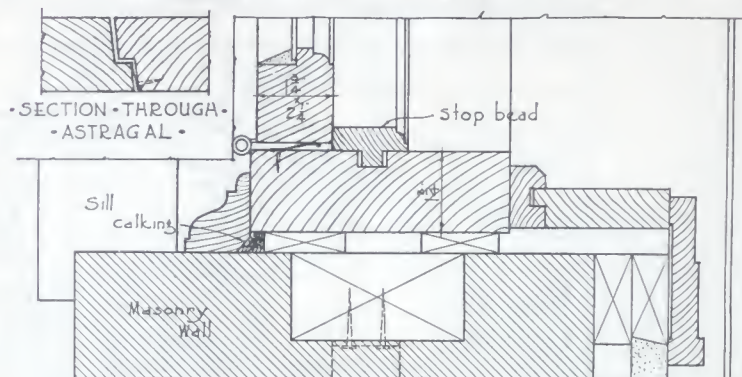
METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

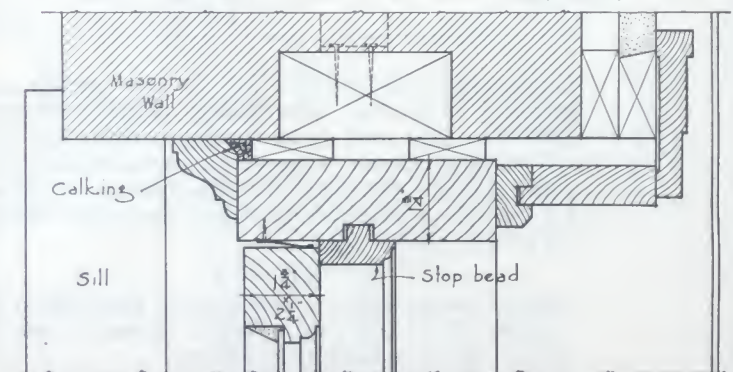
Chamberlin Equip't "O"—Out-Opening Casem't Windows



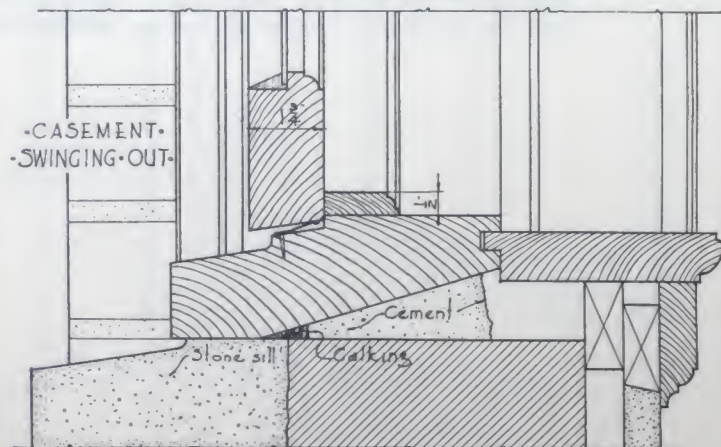
SECTION THROUGH HEAD & UPPER RAIL.



SECTION THROUGH JAMB ON HINGE SIDE



SECTION THROUGH JAMB



SECTION THROUGH SILL.

General Specification

ALL out-opening wood casement windows shall be equipped with Chamberlin Metal Weather Strips, Type "O," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

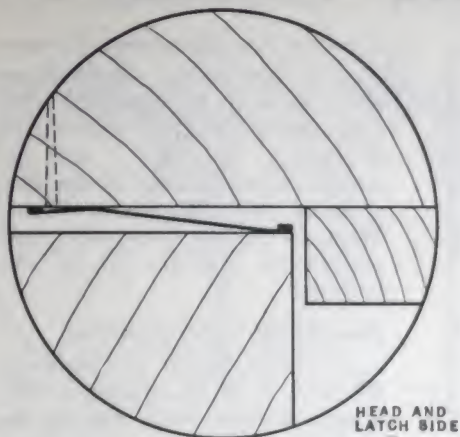
Descriptive Specification

ALL out-opening wood casement windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

SIDES, TOP AND SILL of frame shall be equipped with hemmed bronze securely nailed to frame; bronze shall be set in rabbet to within $\frac{1}{16}$ -inch of stop and sprung so as to touch edges of sash when sash are closed.

CENTER OF DOUBLE CASEMENT—Edge of center sash rail of inactive leaf shall be equipped with hemmed bronze and securely nailed; bronze shall be set in rabbet to within $\frac{1}{8}$ -inch of stop and sprung so as to touch edge of active leaf when sash are closed.

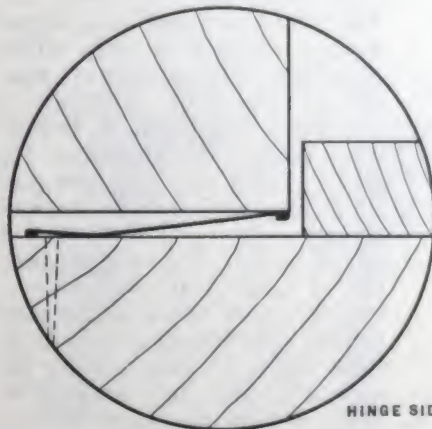
Full-Size Details—Weather Strip Gauges—Equipment “O”



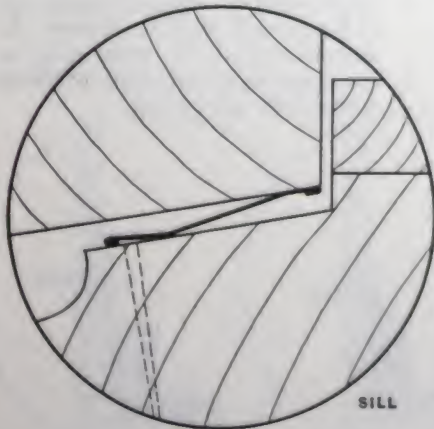
HEAD AND LATCH SIDE



CENTER



HINGE SIDE



SILL

1 3/8" SASH			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	102	31	.0089
Center	102	31	.0089
Hinge side	102	31	.0089
Latch side	102	31	.0089
Sill	102	31	.0089

1 1/4" SASH			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	104	31	.0089
Center	104	31	.0089
Hinge side	104	31	.0089
Latch side	104	31	.0089
Sill	102	31	.0089

CHAMBERLIN EQUIPMENT “O” for out-opening casements is made of highly-tempered bronze which is nailed to the frame so as to touch the outside edges of sash stiles and rails when the sash are closed.

The bronze used in equipment “O” is hemmed on both edges and is manufactured in such a way so that it retains its resiliency.

When the out-swinging casement is set in the frame so as to bring it flush with the outside walls of the building, this equipment is not recommended; preferably, equipment “M” should be used and in connection a special rain drip above the window.

Special training is given mechanics to install this equipment satisfactorily.

Chamberlin Equipment "P"—Hollow Metal Sash

General Specification—Bronze

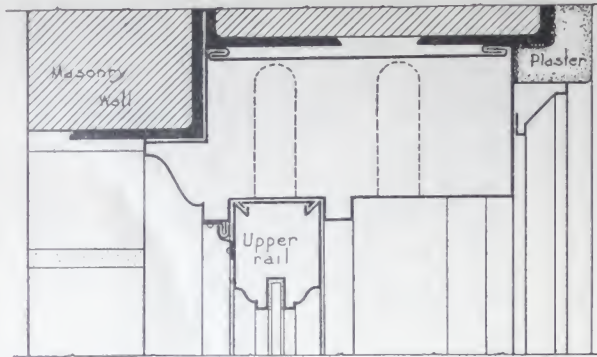
ALL hollow metal double-hung windows shall be equipped with Chamberlin Metal Weather Strips in bronze, Type "P," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

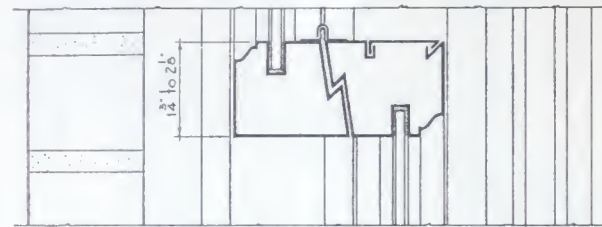
ALL hollow metal double-hung windows shall be equipped with bronze weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HEAD, SIDES AND SILL shall be equipped with a two-member strip, .0179-inch thick. Frame shall be equipped with No. 24 strip set over felt and screwed to frame (screws not more than 5 inches apart); frame shall be equipped with No. 28 strip set over felt and screwed to sash (screws not more than 5 inches apart). Side strips shall remain engaged so sash will slide. Head and sill strips shall become engaged when sash are closed.

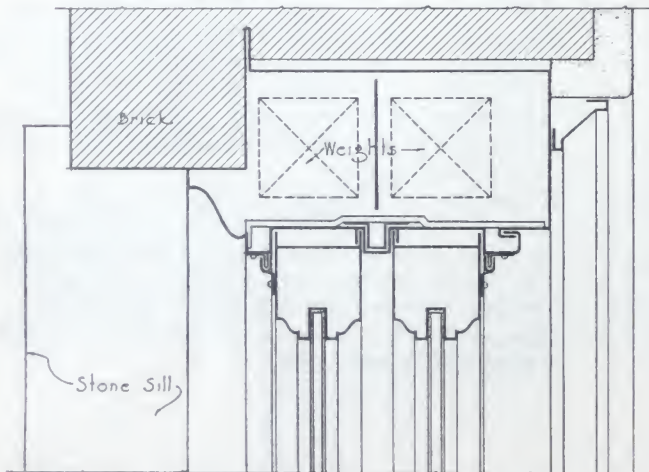
MEETING RAILS shall be equipped with a two-member strip .0179-inch thick. The top edge of upper rail of lower sash shall have a one-piece strip with a beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and set in place over felt and screwed to sash (screws not more than 5 inches apart). Top edge of lower rail of upper sash shall have a one-piece strip with a beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and set on sash over felt and screwed in place (screws not more than 5 inches apart). Strip on upper rail of lower sash shall be opened $\frac{1}{16}$ -inch to receive the male strip on the upper sash and shall interlock when sash are closed.



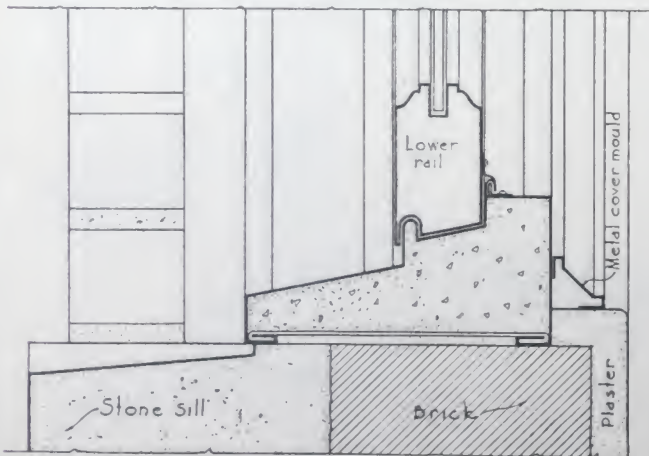
-SECTION THROUGH HEAD-



-SECTION THROUGH MEETING RAILS-

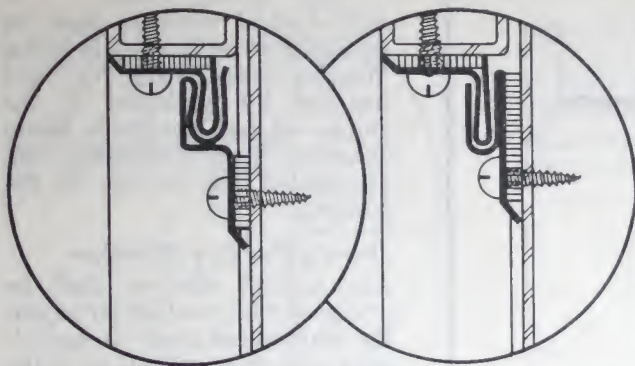


-SECTION THROUGH JAMB-



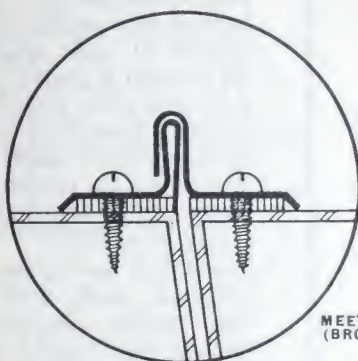
-SECTION THROUGH SILL-

Full-Size Details—Weather Strip Gauges—Equipment “P”

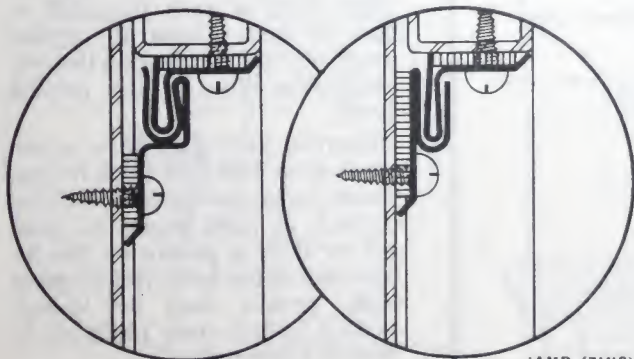


HEAD (BRONZE)

HEAD (ZINC)



MEETING RAILS
(BRONZE OR ZINC)

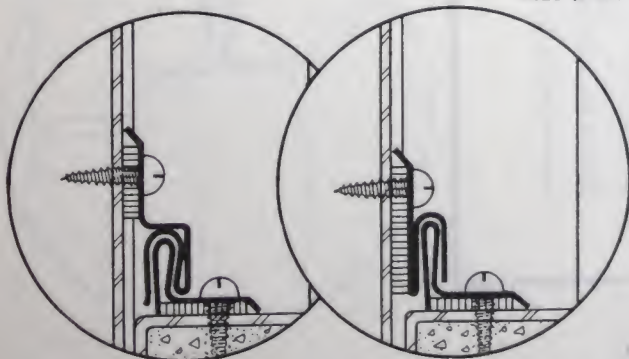


JAMB (BRONZE)

JAMB (ZINC)

SILL (BRONZE)

SILL (ZINC)



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	24	12	.028
	27	12	.028
Sides	24	12	.028
	27	12	.028
Meeting rails	4 hook	12	.028
	21	10	.020
Sill	24	12	.028
	27	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	24	25	.0179
	28	26	.0159
Sides	24	25	.0179
	28	26	.0159
Meeting rails	4 hook	23	.0225
	21	25	.0179
Sill	24	25	.0179
	28	26	.0159

IT ISN'T POSSIBLE to outline here the details of all the various types of hollow metal sash. A typical detail is shown with the application of both zinc and bronze strips.

Metal windows are known as “cold” windows. Enough crack and clearance must be given in all cases so that the window can operate. Engineering tests show that even with the smallest space that can be allowed for the operation of these windows there is a leakage in unstripped windows of thirty to forty cubic feet per minute with a 15-mile wind velocity.

While there are windows of this type that can be weather stripped by having the two-member strips set on the parting bead, the details shown here are for a weather strip application to be made on the window stop for the lower sash, and on the outside stop for the upper sash. This is because most sash do not allow the application elsewhere.

Engineering tests that have been made to date show that it is possible with weather strip application to eliminate from 75% to 85% of the in-leakage of air when sash are exposed to ordinary wind velocities.

METAL THICKNESSES in specifications apply when bronze weather strips are used. When zinc is specified, substitute for all thicknesses .028-inch.

Chamberlin Equipment "Q"—Austral Windows

General Specification

ALL Austral windows shall be equipped with Chamberlin Metal Weather Strips, Type "Q," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

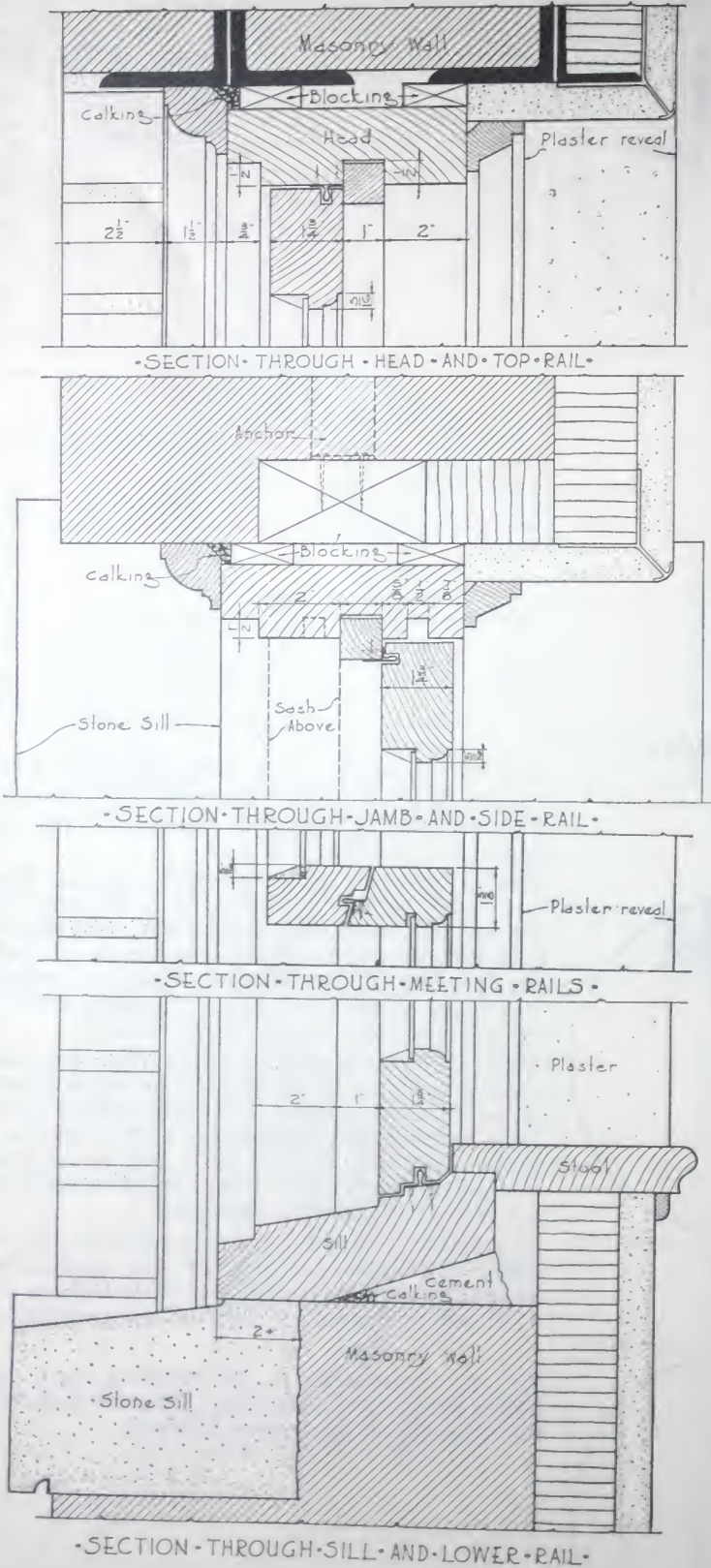
Descriptive Specification

ALL Austral windows shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

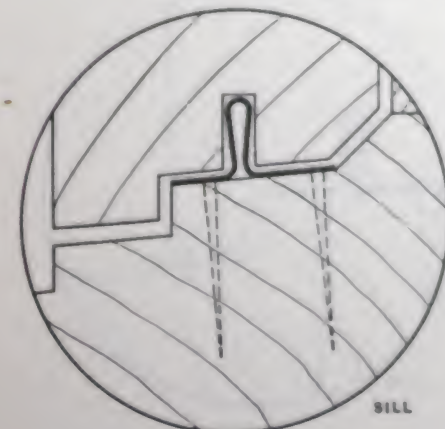
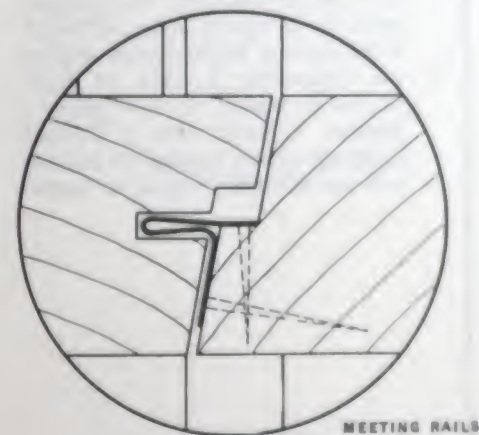
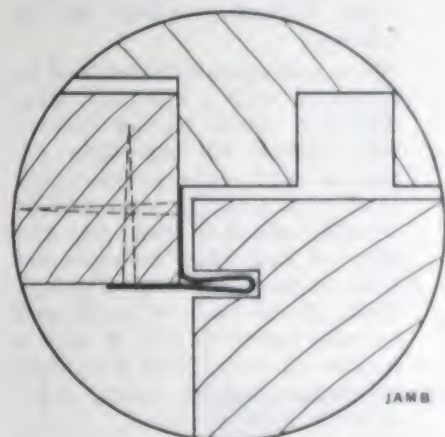
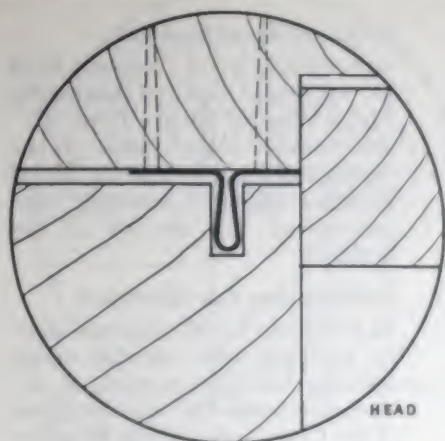
HEAD AND SILL shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base, set to enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of rails. Groove in top rail shall be $\frac{3}{8}$ -inch from inside face of sash measuring to center of groove. Groove in bottom rail shall be in center of sash.

SIDES shall have a one-piece strip .020-inch thick with a beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base, set to enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in face of sash stiles nearest to parting bead. Groove shall be $\frac{1}{2}$ -inch from edge of sash ploughed in face of sash nearest to parting bead and to coincide with the perpendicular line of the parting bead.

MEETING RAIL shall have a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base, set to enter a groove on the inside face of the lower rail of upper sash, groove shall be $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in face of lower rail.



Full-Size Details—Weather Strip Gauges—Equipment “Q”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	6	10	.020
Sides	25	10	.020
Sides, alternate	5 male	9	.018
	5 hook	12	.028
Meeting rails	25	10	.020
Sill	6	10	.020

BRONZE			
	Strip Numbers	Gauge [B. & S.]	Thickness Inches
Head	6	25	.0179
Sides	25	25	.0179
Sides, alternate	5 male	25	.0179
	5 hook	23	.0225
Meeting rails	25	25	.0179
Sill	6	25	.0179

CHAMBERLIN EQUIPMENT “Q” for Austral windows is a standard one-piece weather strip application at the head, sides, sill and meeting rails.

The strong metal member in a wood groove gives effective results as is likewise accomplished by the application of the same principle on ordinary double-hung windows.

An alternate to the one-piece strip for the sides is a combination of male and female members which inter-lock on the runways next to the parting beads. The one-piece strip is recommended, however, because it is strong and does not easily get out of order and from actual experience will remain efficient over a long period of years.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .020-inch thick, bronze shall be .0179-inch thick.

Chamberlin Equipment "R"—Outside Transom Windows

Interlocking

General Specification

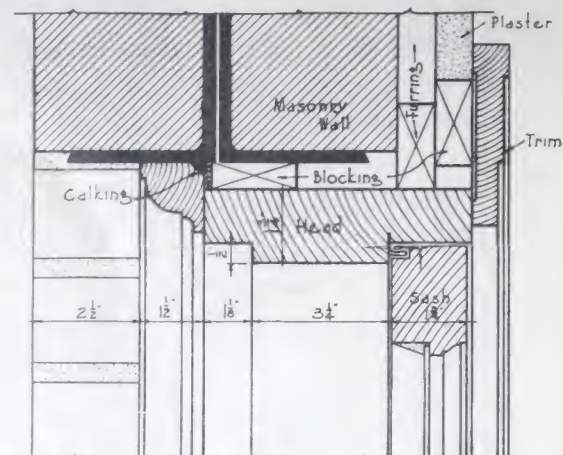
ALL outside wood transoms shall be equipped with Chamberlin Metal Weather Strips, Type "R," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

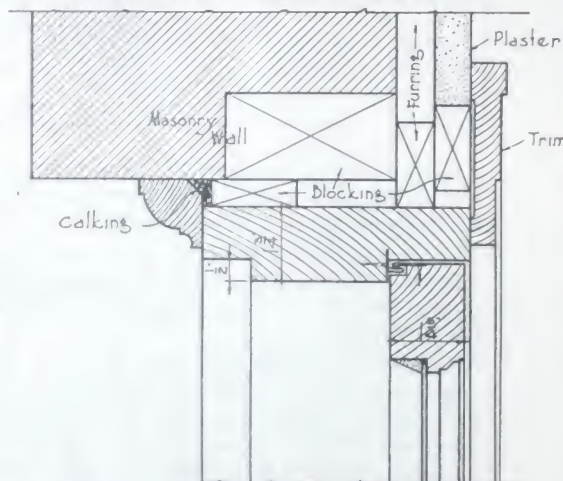
ALL outside wood transoms shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HEAD AND SIDES of frame shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter a kerf in jamb and be securely nailed to stop; top and sides of sash shall be equipped with a one-piece strip .018-inch thick, folded back on itself, and securely nailed to sash in such a manner as to interlock with strip on frame, making sealing joint when transom is closed.

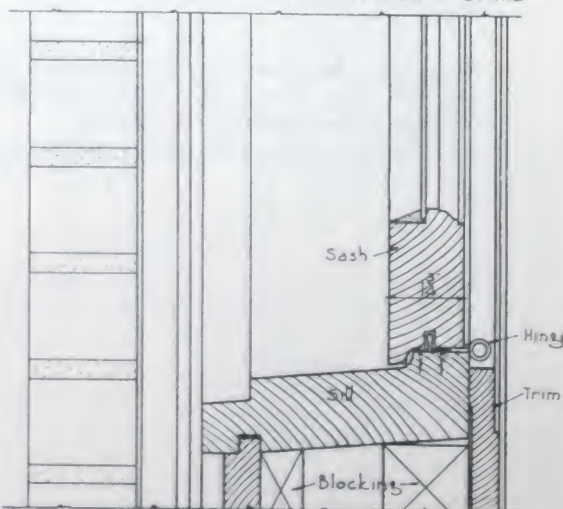
SILL OF FRAME shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to bases; rib shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of bottom rail and securely nailed to frame.



- SECTION - THROUGH - HEAD -

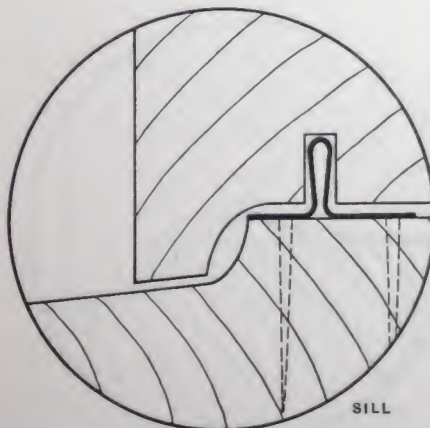
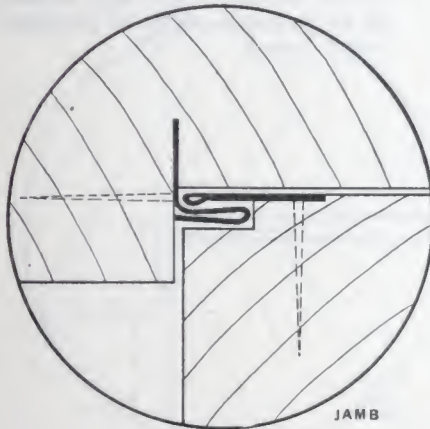
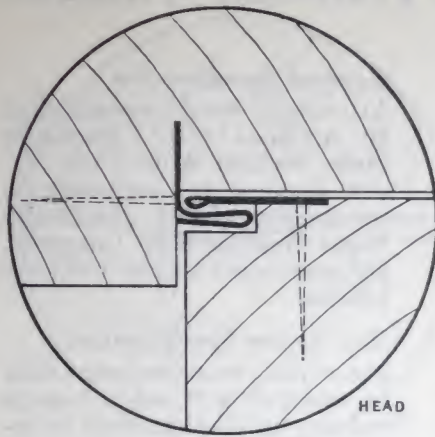


- SECTION - THROUGH - JAMB -



- SECTION - THROUGH - SILL -
- AND - TRANSOM - BAR -

Full-Size Details—Weather Strip Gauges—Equipment “R”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Sides	5 male 21	9 10	.018 .020
Sill	6	10	.020

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Sides	5 male 21	25 25	.0179 .0179
Sill	6	25	.0179

CHAMBERLIN EQUIPMENT “R” for transom windows is a strong interlocking metal equipment installed in a manner similar to installations on casements and doors.

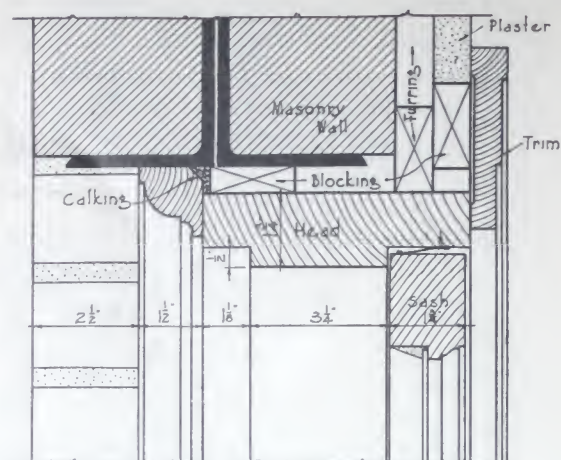
Here only one of several practical methods is shown. Changes in the method of operating these windows dictate changes in the method of weather strip application, but these changes are easily recognized.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

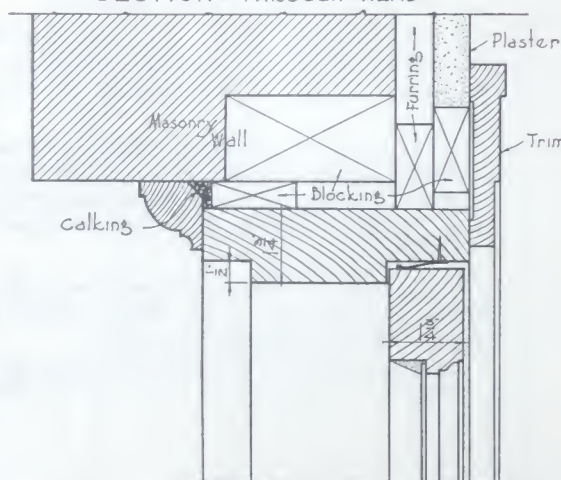
When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.

Chamberlin Equipment "S"—Outside Transom Windows

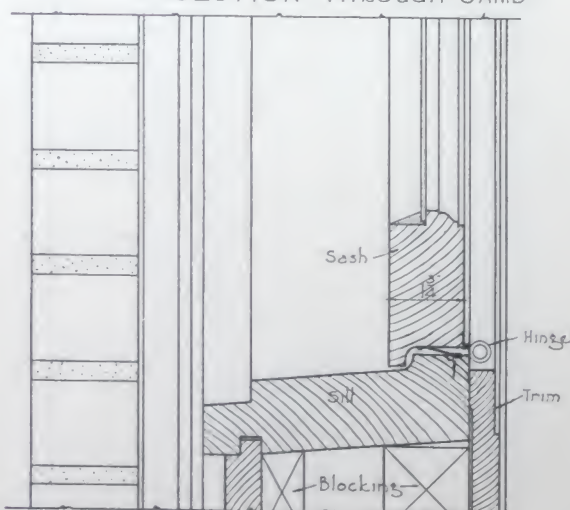
Spring Bronze



-SECTION THROUGH HEAD-



-SECTION THROUGH JAMB-



-SECTION THROUGH SILL-
-AND TRANSOM BAR-

General Specification

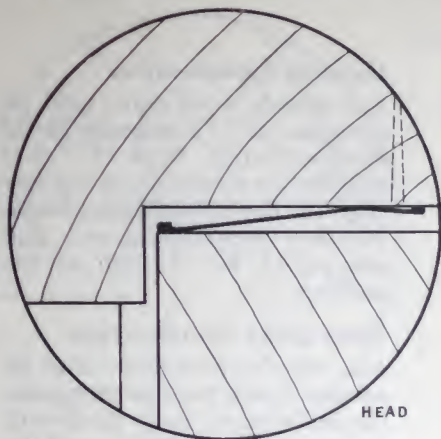
ALL outside wood transoms shall be equipped with Chamberlin Metal Weather Strips, Type "S," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

ALL outside wood transoms shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HEAD, SIDES AND SILL of frame shall be equipped with hemmed bronze securely nailed to frame; bronze shall be set in rabbet to within $\frac{1}{8}$ -inch of stop and sprung so as to touch edges of transom when closed.

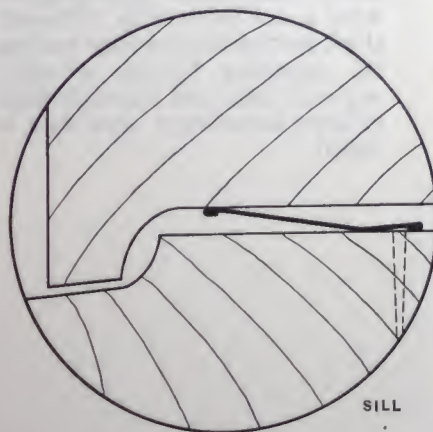
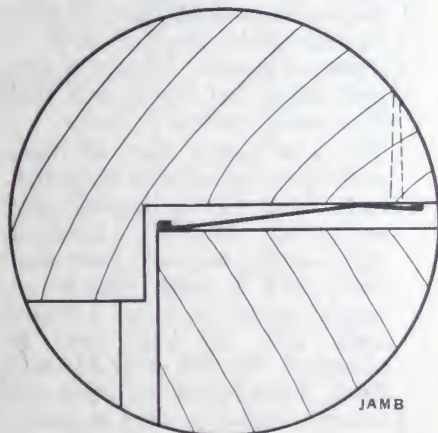
Full-Size Details—Weather Strip Gauges—Equipment “S”



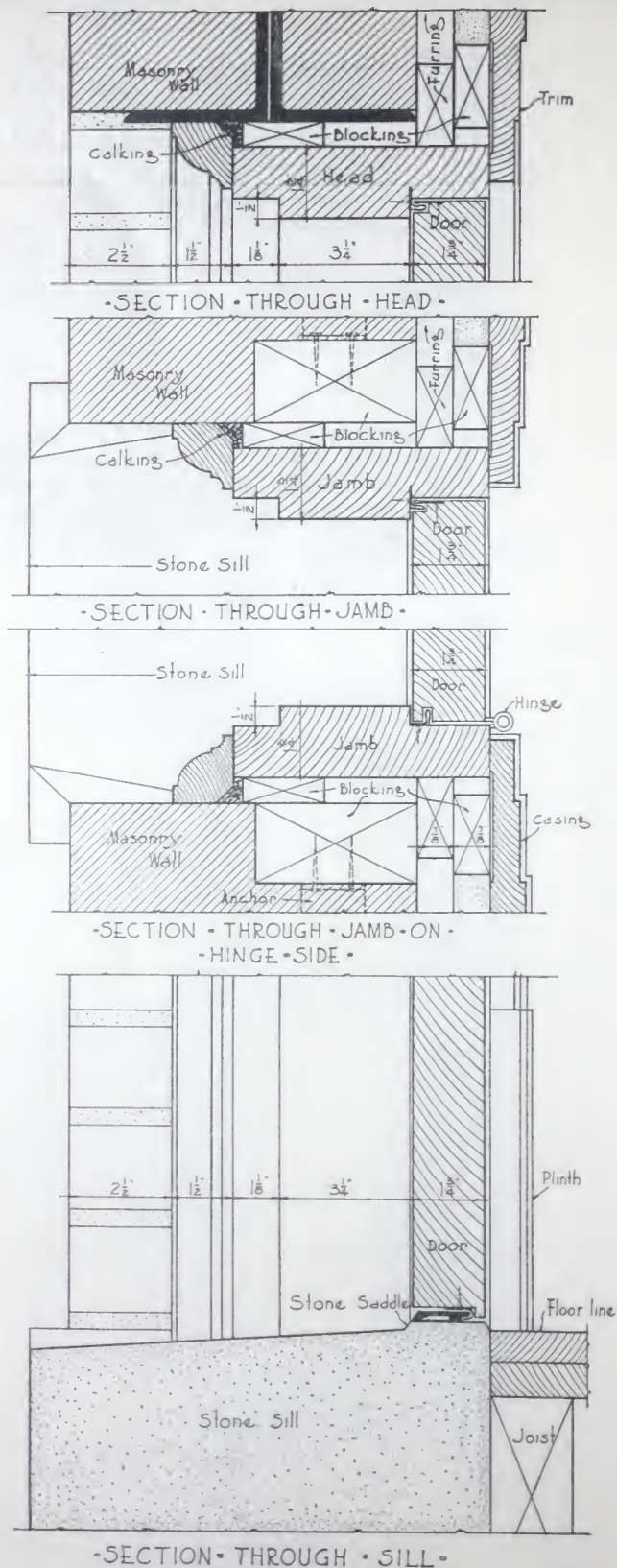
1 $\frac{3}{8}$ " SASH			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	102	31	.0089
Sides	102	31	.0089
Sill	102	31	.0089

1 $\frac{3}{4}$ " SASH			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	104	31	.0089
Sides	104	31	.0089
Sill	102	31	.0089

CHAMBERLIN EQUIPMENT “S” for transom windows is made of highly tempered bronze nailed to the frame in a manner so as to touch the outside edges of the sash when the sash are closed. This equipment is satisfactory when the problem of rain leakage is not under consideration.



Chamberlin Equipment "U"—Doors Interlocking



General Specification

ALL outside wood doors shall be equipped with Chamberlin Metal Weather Strips, Type "U," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

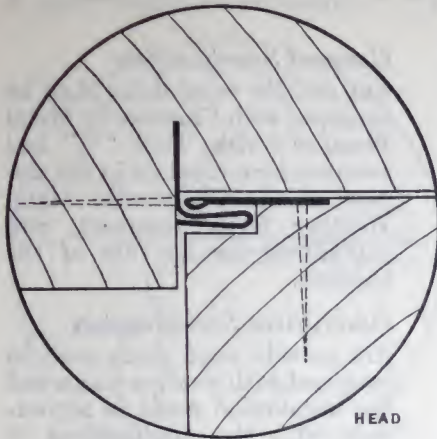
ALL outside wood doors shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HINGE SIDE shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and shall enter a groove $\frac{1}{8}$ -inch wide x $\frac{3}{8}$ -inch deep ploughed in edge of stile, $\frac{3}{8}$ -inch from face of door to center of groove. Flange of strip shall enter kerf in stop and shall be securely nailed to frame.

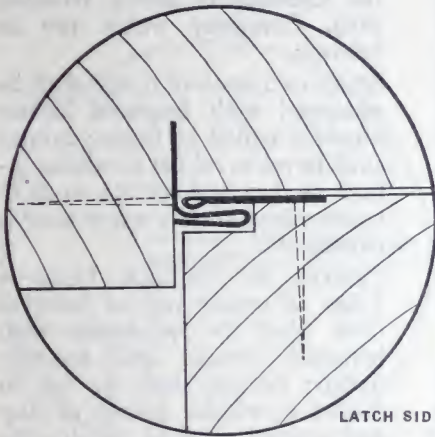
TOP AND LATCH SIDE of frame shall be equipped with strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base; base shall enter kerf in jamb and be securely nailed to stop; top and latch side of door shall be equipped with flat strip .018-inch thick, folded back on itself and securely nailed to door in such a manner as to interlock with strip on frame, making sealing joint when door is closed.

CENTER OF DOUBLE DOOR—Outside edge of active door shall be rabbeted to receive a one-piece strip .018-inch thick, folded back on itself. Outside face of inactive door shall be equipped with a one-piece strip .020-inch thick having beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base and interlock with strip on active door when door is closed.

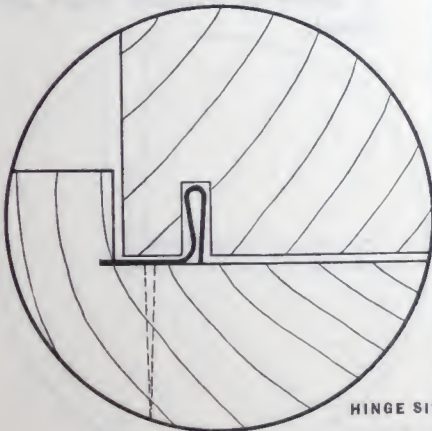
Full-Size Details—Weather Strip Gauges—Equipment “U”



HEAD



LATCH SIDE



HINGE SIDE

ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 21	9 10	.018 .020
Center	5 male 21	9 10	.018 .020
Hinge side	21	10	.020
Latch side	5 male 21	9 10	.018 .020

BRONZE			
	Strip Numbers	Gauge (B & S.)	Thickness Inches
Head	5 male 21	25 25	.0179 .0179
Center	5 male 21	25 25	.0179 .0179
Hinge side	21	25	.0179
Latch side	5 male 21	25 25	.0179 .0179

CHAMBERLIN EQUIPMENT “U” for doors is a strong interlocking equipment similar to that used on equipments “D,” “E” and “F” for in-opening casements.

Because of a wide variety of sills which can be used, sill details are included in a separate specification on pages 42 and 43.

When this type of equipment is used, it is recommended that for main entrance doors the weather stripping be made of bronze instead of zinc.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .020-inch thick, bronze shall be .0179-inch thick.

Specifications and full-size details of sill equipment will be found on pages 42 and 43.

Chamberlin Equipment "V"—Doors

Spring Bronze

General Specification

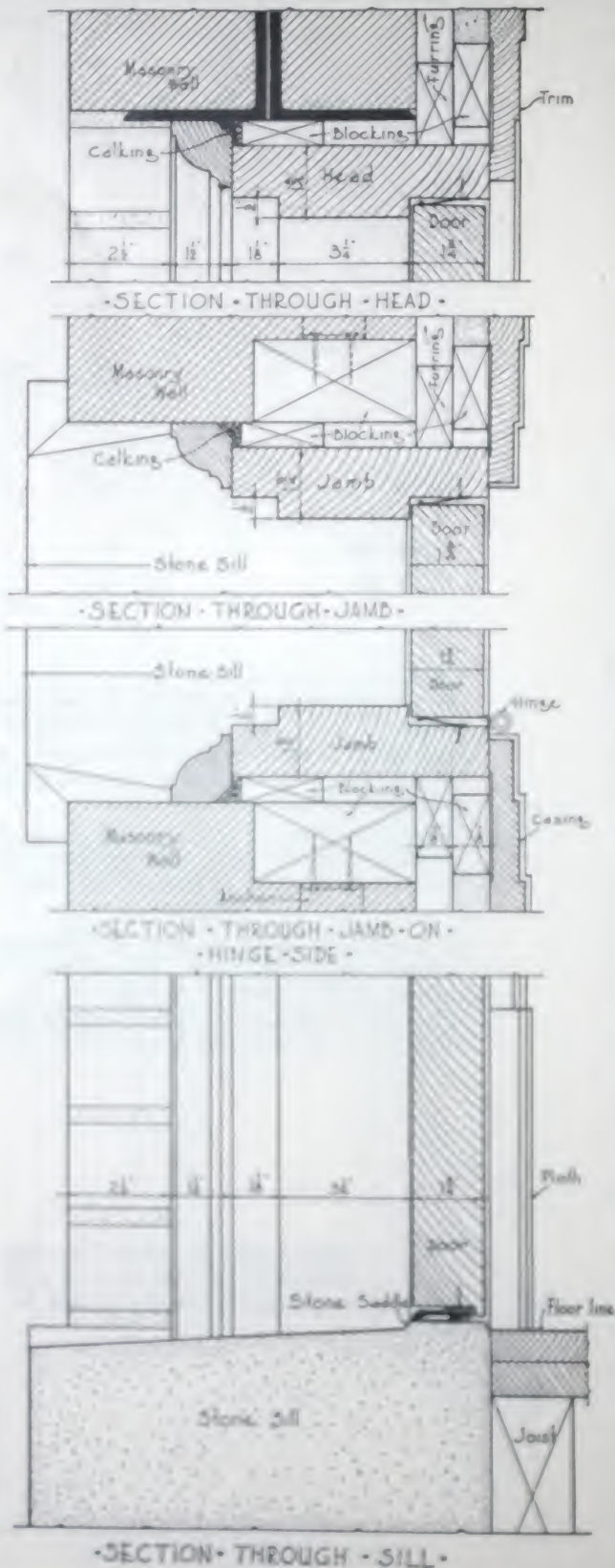
ALL outside wood doors shall be equipped with Chamberlin Metal Weather Strips, Type "V," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company, and guaranteed for the life of the building.

Descriptive Specification

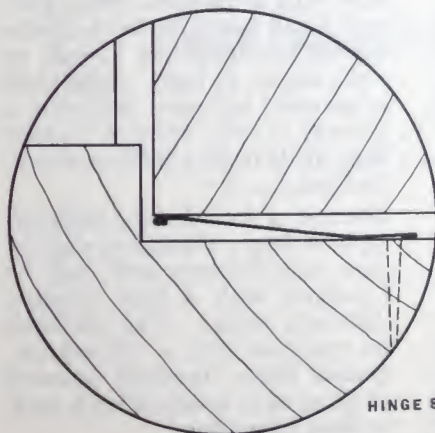
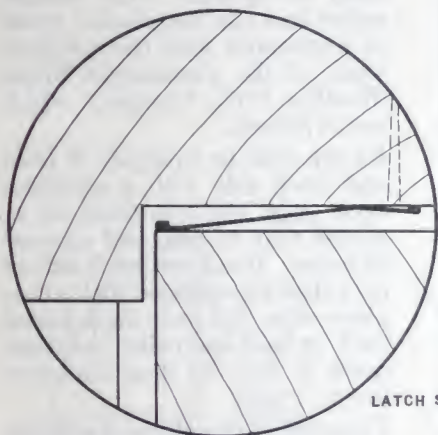
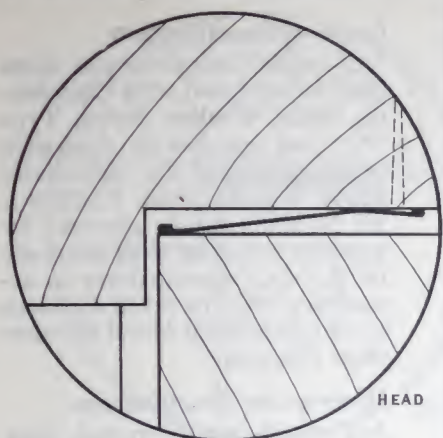
ALL outside wood doors shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

SIDES AND HEAD of frame shall be equipped with hemmed bronze securely nailed to frame; bronze shall be set in rabbet to within $\frac{1}{8}$ -inch of stop and sprung so as to touch edges of door when door is closed.

CENTER OF DOUBLE DOOR — Edge of center rail of inactive door shall be equipped with hemmed bronze and securely nailed; bronze shall be set in rabbet to within $\frac{1}{8}$ -inch of stop and sprung so as to touch edge of active door when doors are closed.



Full-Size Details—Weather Strip Gauges—Equipment “V”



1 $\frac{3}{8}$ " DOOR			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	102	31	.0089
Center	102	31	.0089
Hinge side	102	31	.0089
Latch side	102	31	.0089

1 $\frac{3}{4}$ " DOOR			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	104	31	.0089
Center	104	31	.0089
Hinge side	104	31	.0089
Latch side	104	31	.0089

CHAMBERLIN EQUIPMENT “V” for doors is made of highly tempered bronze nailed to the frame so as to touch the outside edges of doors when doors are closed.

Chamberlin bronze equipment is hemmed at both edges and because of unusual manufacturing facilities this can be done without destroying the temper of the metal.

As is true of out-opening casements, the installation is most important to insure satisfactory results. That is why special training is necessary for properly installing this equipment.

Specifications and full-size details of sill equipment will be found on pages 42 and 43.

Chamberlin Equipment "X"—Metal-Covered Doors

General Specification

ALL outside metal-covered doors shall be equipped with Chamberlin Metal Weather Strips, Type "X," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company. All rabbets and grooves for weather stripping shall be made by the door manufacturer in accordance with the detail drawings of the Chamberlin Metal Weather Strip Company.

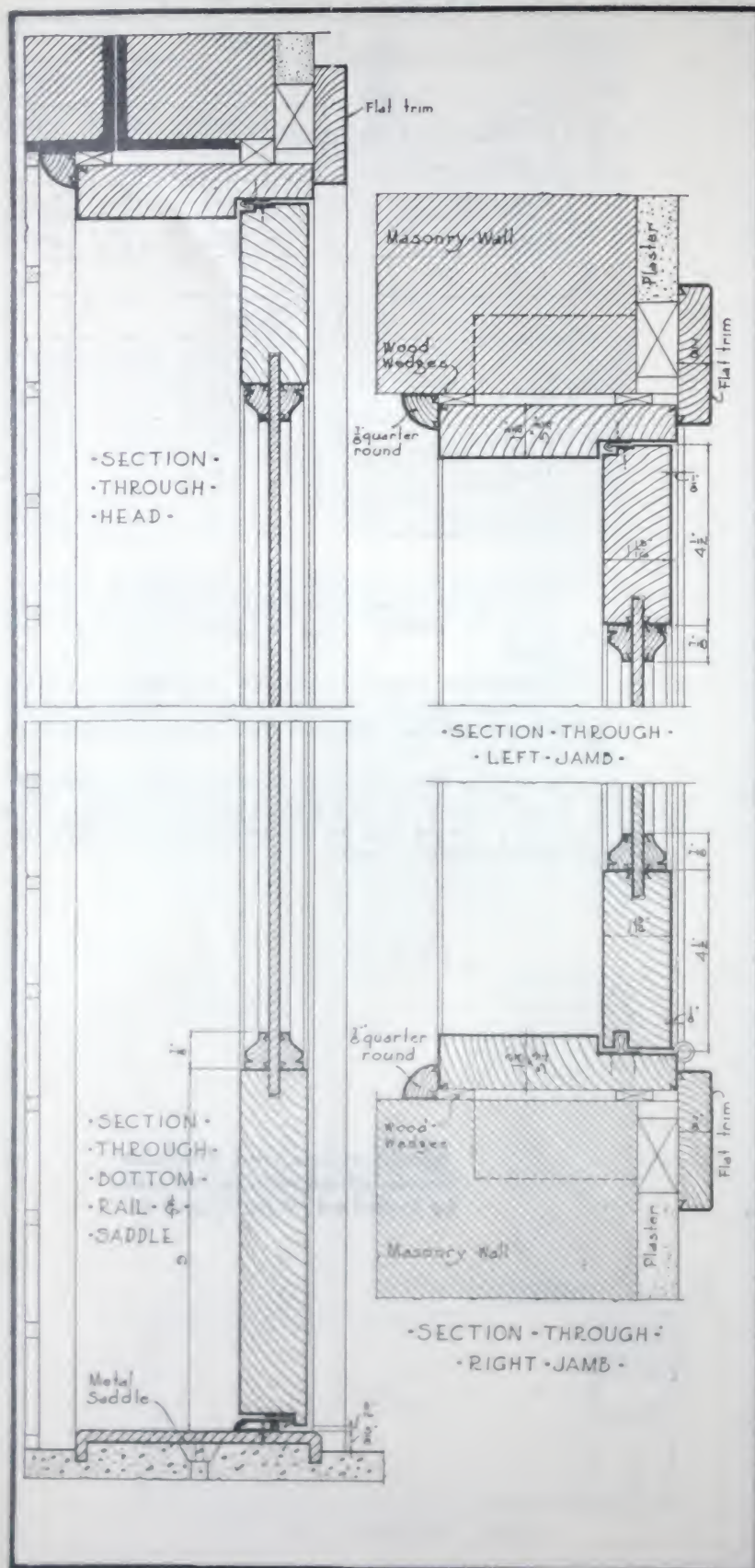
Descriptive Specification

ALL outside metal-covered doors shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

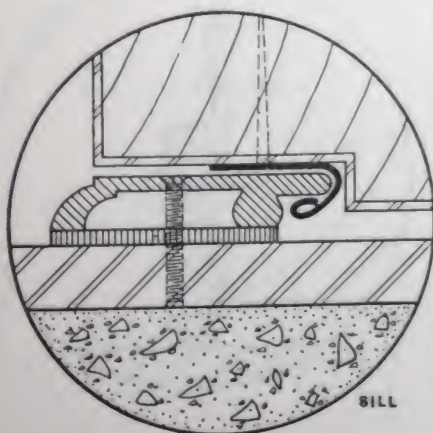
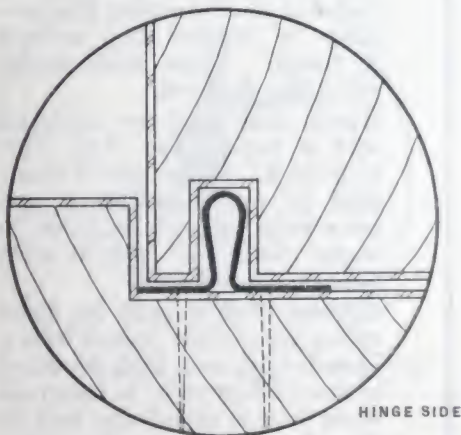
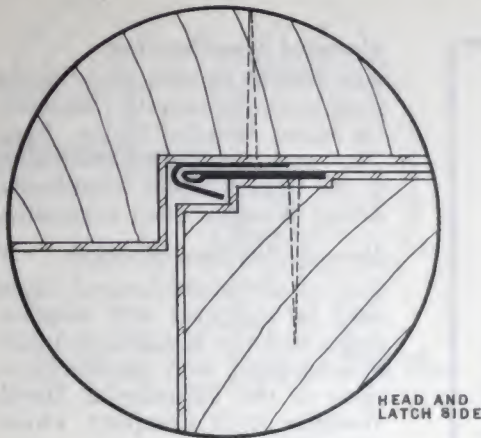
FRAME shall be equipped at head and latch side with a one-piece hook strip .028-inch thick set in rabbet next to stop and screwed in frame. Head and latch side of door shall be equipped with a one-piece strip .018-inch thick folded back on itself and nailed in rabbet made in door by door manufacturer.

FRAME shall be equipped at hinge side with a one-piece strip .028-inch thick having a beaded edge sealing rib extending $\frac{3}{8}$ -inch at right angles to base. Strip shall be screwed to frame and enter a groove $\frac{1}{4}$ -inch wide x $\frac{1}{2}$ -inch deep made in door by door manufacturer.

BOTTOM of door shall be rabbeted $\frac{1}{4}$ -inch deep x $1\frac{3}{8}$ -inches wide by door manufacturer and shall be equipped with a hook member .028-inch thick. The sill shall be equipped with a $1\frac{3}{8}$ -inch extruded brass threshold screwed to sill so as to interlock with hook on door when closed.



Full-Size Details—Weather Strip Gauges—Equipment “X”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	5 male 5 hook	9 12	.018 .028
Hinge side	50	12	.028
Latch side	5 male 5 hook	9 12	.018 .028
Sill	29	Extruded Brass	
Sill, hook member	26	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	5 male 5 hook	25 23	.0179 .0225
Hinge side	50	23	.0225
Latch side	5 male 5 hook	25 23	.0179 .0225
Sill	29	Extruded Brass	
Sill, hook member	26	23	.0225

CHAMBERLIN EQUIPMENT “X” for metal-covered doors is furnished only where doors have been detailed to receive weather strip.

Metal-covered doors are known as “cold” doors. Sufficient space must be allowed for operation.

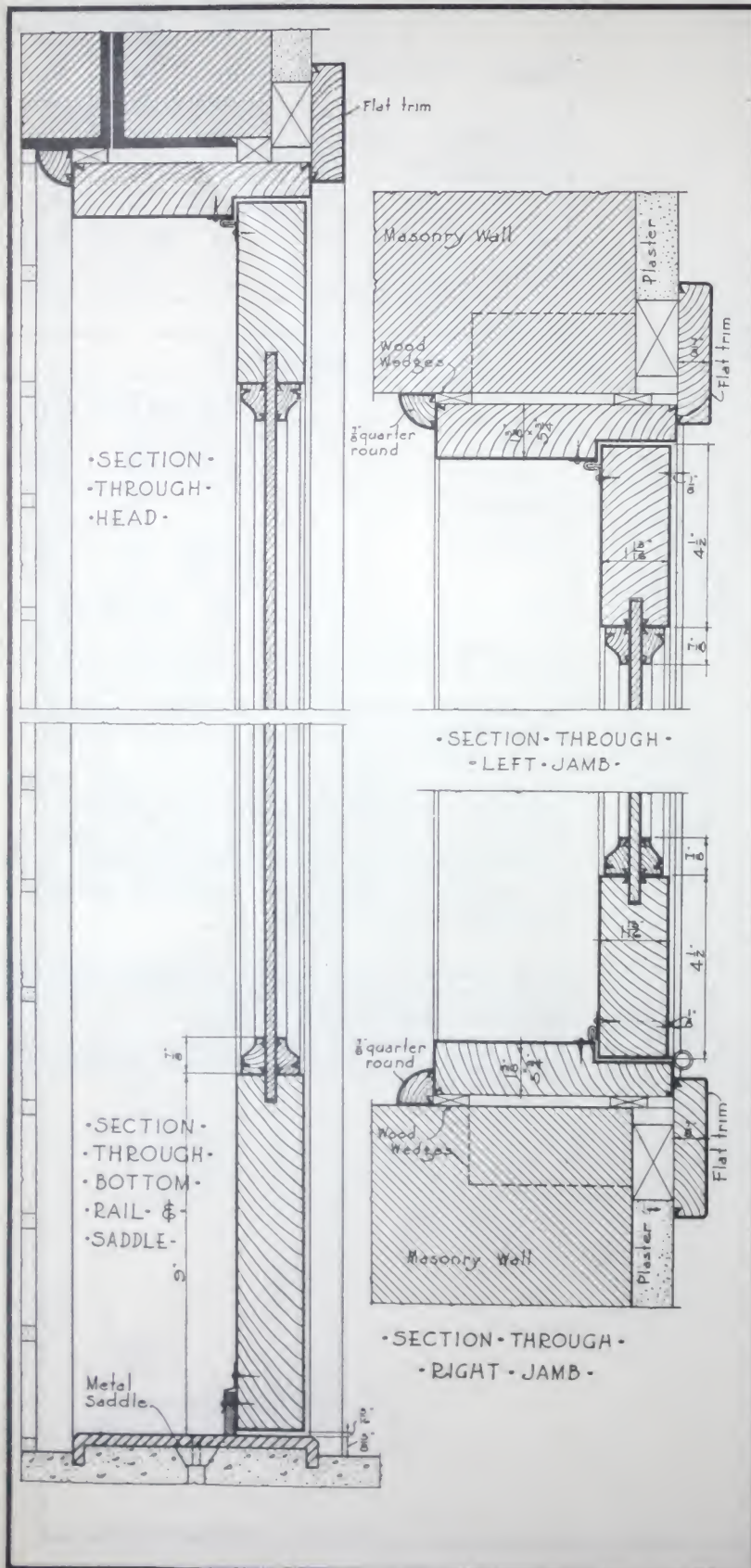
Manufacturers of metal-covered doors can make the doors in accordance with the details shown here. Then the method of weather strip application becomes a comparatively easy problem.

METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .018-inch thick, bronze shall be .0179-inch thick.
When zinc is .028-inch thick, bronze shall be .0225-inch thick.

Chamberlin Equipment "Y"—Metal-Covered Doors

Visible



General Specification

ALL outside metal-covered doors shall be equipped with Chamberlin Metal Weather Strips, Type "Y," and installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company.

Descriptive Specification

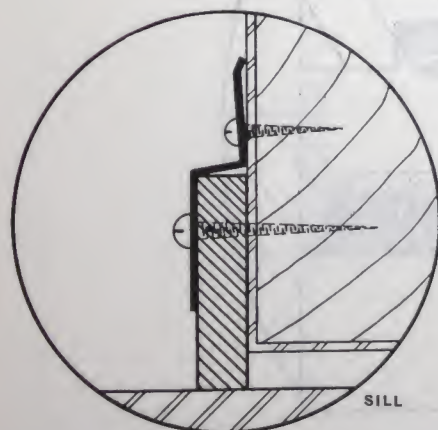
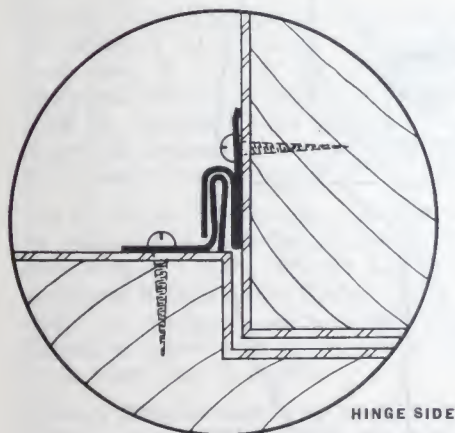
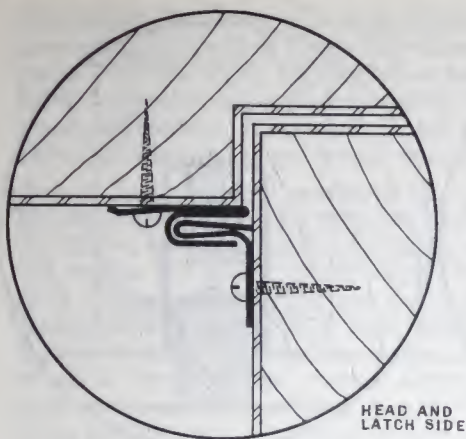
ALL outside metal-covered doors shall be equipped with weather strips and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

HEAD AND LATCH SIDE shall be equipped with a two-member strip .028-inch thick. Head and latch side of door shall be equipped with a one-piece strip having a beaded edge sealing rib extending 3/8-inch at right angles to base nailed to door engaging in a one-piece "h" shaped strip screwed to frame. Strips shall engage when door is closed.

HINGE side shall be equipped with a two-member strip .028-inch thick. Hinge side of frame shall be equipped with a one-piece strip screwed to frame to engage with "h" shaped strip nailed to face of door.

BOTTOM of door shall be fitted with a piece of felt 1/4-inch wide x 7/8-inch high and shall be fitted to face of door so as to touch sill when door is closed and held in place by metal strip 1 1/4-inches wide x .028-inch thick. Felt and metal strip shall be fastened to door with brass screws.

Full-Size Details—Weather Strip Gauges—Equipment “Y”



ZINC			
	Strip Numbers	Gauge Zinc Std.	Thickness Inches
Head	24 27	12 12	.028 .028
Hinge side	24 27	12 12	.028 .028
Latch side	24 27	12 12	.028 .028
Sill	63	12	.028

BRONZE			
	Strip Numbers	Gauge (B. & S.)	Thickness Inches
Head	24 27	23 23	.0225 .0225
Hinge side	24 27	23 23	.0225 .0225
Latch side	24 27	23 23	.0225 .0225
Sill	63	23	.0225

CHAMBERLIN EQUIPMENT “Y” for metal-covered doors is used where doors have not been detailed to receive weather strip. This means that the weather strip application must be made on the face of the doors. Naturally in this case, the weather strip must be made considerably heavier than the ordinary types and a heavy gauge is furnished in both zinc and bronze.

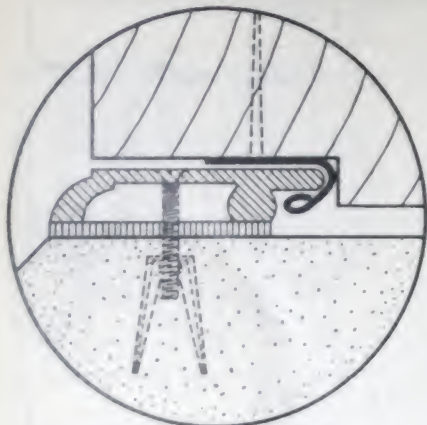
When the frames are made of iron or steel, that, of course, necessitates drilling and tapping for the application of weather strip.

The heavy felt pad which is furnished for the bottom is made impervious to moisture by boiling in paraffin. It is set in place so as to close the opening underneath the door. It is covered with metal and screwed into place both through the felt and at the top of the metal covering.

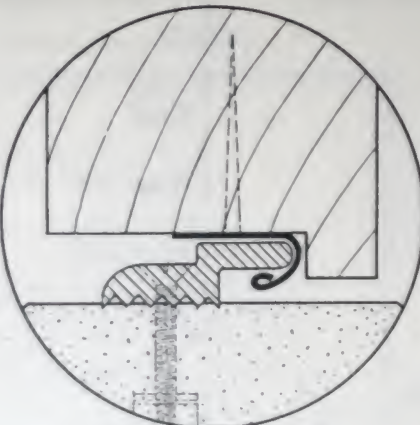
METAL THICKNESSES in specifications apply when zinc weather strips are used. When bronze is specified instead of zinc substitute as follows:

When zinc is .028-inch thick, bronze shall be .0225-inch thick.

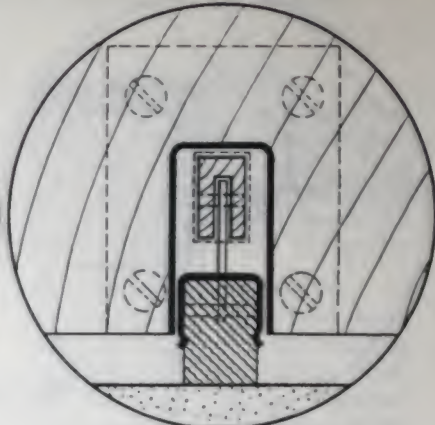
Chamberlin Equipment "Z"—Door Bottoms—F. S. D.



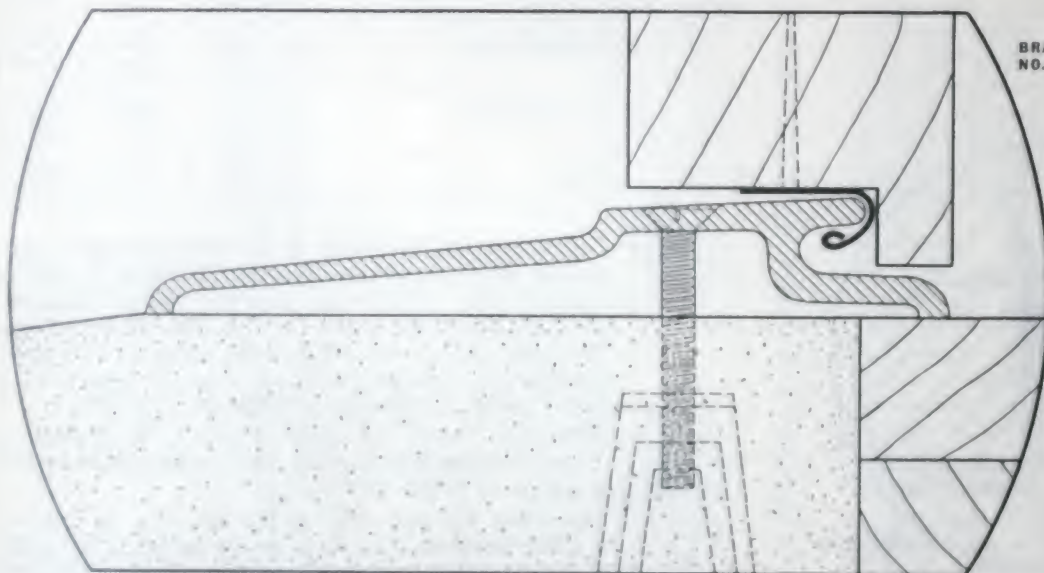
BRASS THRESHOLD, NO. 29



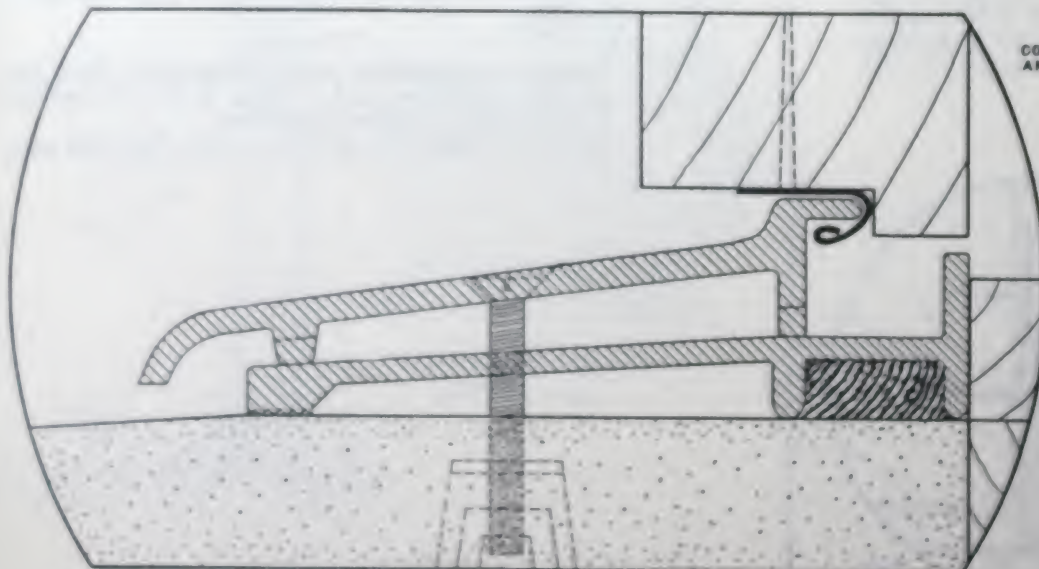
BRASS THRESHOLD, NO. 89



AUTOMATIC NO-DUST BOTTOM



BRASS THRESHOLD,
NO. 35



COMBINATION THRESHOLD
AND CHANNEL—NO. 18

Specifications—Weather Strip Gauges—Equipment “Z”

AUTOMATIC NO-DUST—Bottom of doors shall be grooved $\frac{1}{2}$ -inch wide x 1 inch deep to receive automatic No-Dust strip; edges of door shall be rabbeted to receive brass plates to hold No-Dust in place; adjustment screw shall be set in frame to adjust plunger rod in automatic door bottom.

No. 16 COMBINATION THRESHOLD AND CHANNEL—Bottom of doors shall be rabbeted $\frac{1}{4}$ -inch deep x $1\frac{3}{4}$ inches wide for $2\frac{1}{4}$ -inch doors; $\frac{1}{4}$ -inch deep x $1\frac{1}{4}$ inches wide for $1\frac{3}{4}$ -inch doors; and $\frac{1}{8}$ -inch deep x 1 inch wide for $1\frac{3}{8}$ -inch doors and shall be equipped with hook .0225-inch thick nailed to bottom of door. Sill shall be equipped with combination threshold and channel screwed in place so that the channel is at least $\frac{1}{2}$ -inch wide. Weep holes shall be cut in legs of top section of threshold to allow drainage from channel to go outside.

No. 29 BRASS THRESHOLD—Bottom of door shall be rabbeted $\frac{1}{4}$ -inch deep x $1\frac{3}{8}$ inches wide ($\frac{1}{4}$ -inch deep x 1 inch wide for $1\frac{3}{8}$ -inch doors) and equipped with hook .0225-inch thick. Sill of door shall be equipped with $1\frac{3}{8}$ -inch extruded brass threshold screwed to sill so as to interlock with hook when door is closed.

No. 35 BRASS THRESHOLD—Bottom of doors shall be rabbeted $\frac{1}{4}$ -inch deep x $1\frac{3}{8}$ inches wide ($\frac{1}{4}$ -inch deep x 1 inch for $1\frac{3}{8}$ -inch doors) and equipped with hook .0225-inch thick. Sill of door shall be equipped with $4\frac{1}{4}$ -inch extruded brass threshold screwed to sill and shall interlock with hook when door is closed.

No. 69 BRASS THRESHOLD—Bottom of doors shall be rabbeted $\frac{1}{4}$ -inch deep x $1\frac{3}{8}$ inches wide ($1\frac{1}{4}$ -inch deep x 1 inch wide for $1\frac{3}{8}$ -inch doors) and equipped with hook .0225-inch thick. Sill of door shall be equipped with 1-inch extruded brass threshold screwed to sill and shall interlock with hook when door is closed.

METAL THICKNESSES in above specifications apply when bronze weather strips are used. When zinc is specified substitute for all thicknesses .028-inch.

Z I N C		
	Gauge Zinc Std.	Thickness Inches
Automatic No-Dust Shells	12	.028
No. 29, $1\frac{3}{8}$ " Threshold	Extruded Brass	
No. 69, 1" Threshold	Extruded Brass	
No. 35, $4\frac{1}{4}$ " Threshold	Extruded Brass	
No. 16, Comb. Thresh'd & Channel	Extruded Brass	
No. 26 hook for Nos. 29-69-35-16	12	.028

B R O N Z E		
	Gauge (B. & S.)	Thickness Inches
Automatic No-Dust Shells	23	.0225
No. 29, $1\frac{3}{8}$ " Threshold	Extruded Brass	
No. 69, 1" Threshold	Extruded Brass	
No. 35, $4\frac{1}{4}$ " Threshold	Extruded Brass	
No. 16, Comb. Thresh'd & Channel	Extruded Brass	
No. 26 hook for Nos. 29-69-35-16	23	.0225

THE AUTOMATIC NO-DUST BOTTOM has been successfully used for 20 years. It is made strong to withstand the wear of daily service. The felt is rendered impervious to moisture by boiling in paraffin. The felt pad touches the sill only when the door is closed, raising flush with bottom of door when the door opens. No. 29 and No. 69 brass thresholds are made of extruded brass. They are highly polished before being set. No. 35 is recommended to afford the finishing touch to entrances of attractive homes and buildings. No. 16 combination threshold and channel was perfected in 1924; it has the qualities of the No. 68-A double channel sill and the attractiveness of the No. 35 threshold.

Chamberlin Calking Treatments

Window and Door Frames, etc.

NO SEPARATE DETAILS of window and door frames to show the application of calking are shown in this book for the reason that the various left-hand page details show just where calking is needed on different types of windows and doors.

Actual engineering tests show that the leakage of air around frames in ordinary building construction is about equal to the leakage of air through the cracks where weather stripping is ordinarily applied. This means that in order to stop in-leakage of air and in order to insure the efficiency of heating and ventilating plants, calking is as necessary as weather strips.

Then, too, the dust streaks frequently found around window and door frames offer sufficient evidence that this in-leakage of air brings with it soot and dust. Often-times pulley leakage can be stopped by calking frames. In calking, as in weather stripping, it is necessary that only the best of material be used, and the application of it by men who are trained in that work.

Chamberlin Calking Compound is the result of over twenty years of experimenting with many kinds of materials to find the compound that would adhere to wood and masonry.

Where there are staff beads it is preferable that these be removed and the calking be placed in the crack between the frame and the masonry.

The formation of a skin on the surface of Chamberlin Calking Compound permits it to remain soft and pliable underneath. That is why it is so much more practical than cement, which hardens, cracks and falls away.

General Specification

All outside window and door frames shall be equipped with Chamberlin Calking Compound installed by mechanics in the employ of the Chamberlin Metal Weather Strip Company.

Descriptive Specification

All outside window and door frames shall be equipped with Calking Compound and the installation made in accordance with the specifications of the Chamberlin Metal Weather Strip Company which are as follows:

FOR CALKING BEHIND STAFF BEADS — The general contractor shall provide for removing temporarily - set staff beads previous to calking of window and door frames, and after calking is completed, inspected and approved, he shall re-set same permanently in place.

Thoroughly calk all joints around all window and door frames with Calking Compound, forcing compound into the space between masonry and the outside of the wood frames, around jambs, heads and sills.

Where spaces between the frames and the surrounding masonry are wider than $\frac{1}{4}$ -inch, these spaces shall be packed to within $\frac{1}{2}$ -inch of frame surface with oakum and the remaining space filled with calking compound.

FOR CALKING BETWEEN STAFF BEADS AND MASONRY OR WHERE THERE IS NO STAFF BEAD — Thoroughly calk all joints around all window and door frames with Calking Compound, forcing compound into the space between staff-bead and masonry (or between frame and masonry) around jambs, heads and sills.

Where spaces between the staff bead and the surrounding masonry (or between the frame and surrounding masonry) are wider than $\frac{1}{4}$ -inch, these spaces shall be packed to within $\frac{1}{2}$ -inch of surface with oakum and the remaining space filled with Calking Compound.

Chamberlin Service Also Eliminates Elsewhere Leakages

IN-LEAKAGE OF AIR between the sash and frame is stopped by the use of Chamberlin Metal Weather Strips. The design is important, but even more so is the installation and service. There is a leakage of air between the frames and the masonry. Chamberlin Calking Compound applied by Chamberlin mechanics effectually stops that leakage.

Then there is the actual leakage of air through the walls due to the porosity of the materials. This is stopped by painting and paper.

Then, at window and door openings there is another source of leakage. While this condition is most likely to occur on old buildings, it is quite important that the service furnished to take care of this be available to the architect and his client.

This is the leakage occasioned by the glazing of the sash becoming ineffective, due to the action of the elements and expansion and contraction. The putty frequently cracks away from the glass and as the windows or doors are operated, it becomes loose and falls away.

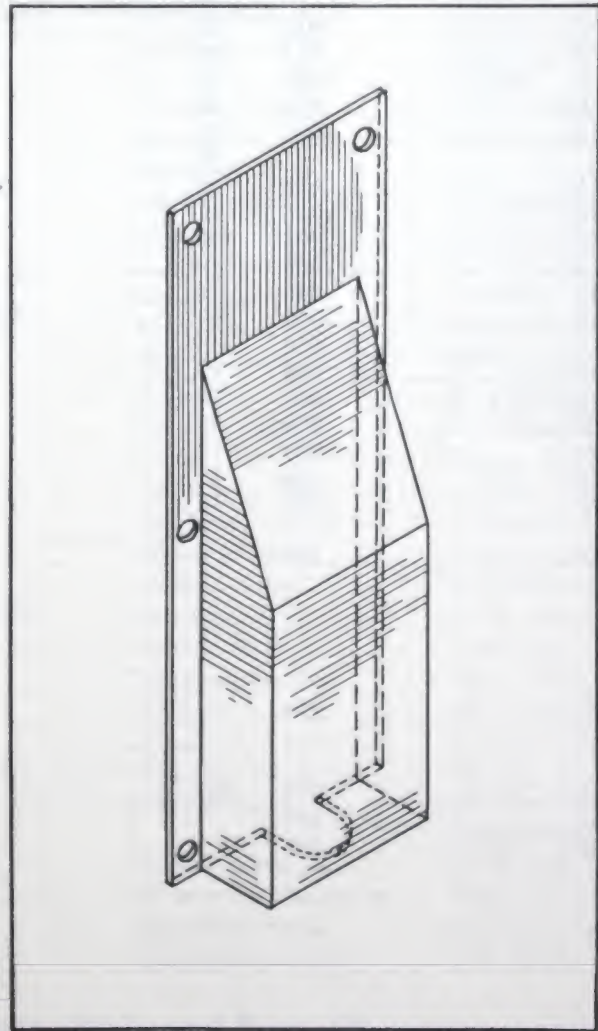
At the time of installation of weather strip and calking, it is always advisable to have this glazing checked over to make sure that all glazing is in first-class condition.

Chamberlin service covers this work. While we do not take contracts for this sort of work in new buildings, it is a regular part of Chamberlin Service when weather stripping and calking old buildings.

A still further source of in-leakage of air is through the cracks in the frame, and in the case of double-hung windows, through the pulley holes. Cracks in the frame are likewise taken care of by Chamberlin calking, and where a complete installation of weather stripping and calking and glazing is done, it is also advisable at the same time to repaint the outside of the sash and frame.

Leakage at the pulley holes can very frequently be stopped by calking around the frames and the cracks in the frames. Even where this is done there are many cases where there is still an in-leakage of air through the pulley holes. A new service of Chamberlin is suggested for this to stop this leakage. Chamberlin pulley guards are now furnished and help to still further reduce in-leakage of air.

When called upon to supervise the reconditioning of windows and doors, it is our suggestion that the architect consider this complete service—Chamberlin weather strips, calking, **glazing of sash**, calking of frames, pulley guards.



CHAMBERLIN PULLEY GUARD

Reference List of Standard Gauges

Zinc Standard—Brown and Sharpe

Brown & Sharpe gauge is ordinarily used to specify the thickness of bronze and copper. Sheet zinc is usually measured by a Standard zinc gauge used by the manufacturers of sheet zinc.

The following tables will be found of assistance in making comparisons between the gauges given for zinc and bronze strips:

ZINC GAUGE		B. & S.		DECIMAL EQUIVALENTS OF FRACTIONS OF AN INCH	
No.	Thickness in inches	No.	Approximate thickness in inches		
3.....	.006	34.....	.0063	1/64.....	.016
4.....	.008	33.....	.0070	1/32.....	.031
5.....	.010	32.....	.0079	3/64.....	.047
6.....	.012	31.....	.0089	1/16.....	.063
7.....	.014	30.....	.0100	5/64.....	.078
8.....	.016	29.....	.0112	3/32.....	.094
9.....	.018	28.....	.0126	7/64.....	.109
10.....	.020	27.....	.0141	1/8.....	.125
11.....	.024	26.....	.0159	9/64.....	.140
12.....	.028	25.....	.0179	5/32.....	.156
13.....	.032	24.....	.0201	11/64.....	.172
14.....	.036	23.....	.0225	3/16.....	.187
15.....	.040	22.....	.0253	13/64.....	.203
16.....	.045	21.....	.0284	7/32.....	.219
17.....	.050	20.....	.0319	15/64.....	.234
18.....	.055	19.....	.0358	1/4.....	.250
19.....	.060	18.....	.0403	3/8.....	.375
20.....	.070	17.....	.0452	1/2.....	.500
21.....	.080	16.....	.0508	1.....	1.000
22.....	.090	15.....	.0570		
23.....	.100	14.....	.0640		
24.....	.125	13.....	.0719		
		12.....	.0808		
		11.....	.0907		
		10.....	.1018		
		9.....	.1144		
		8.....	.1284		
		7.....	.1442		
		6.....	.1620		
		5.....	.1819		
		4.....	.2043		
		3.....	.2294		
25.....	.250	2.....	.2576		
		1.....	.2893		
		0.....	.3249		
26.....	.375	000.....	.4096		
27.....	.500				
28.....	1.000				

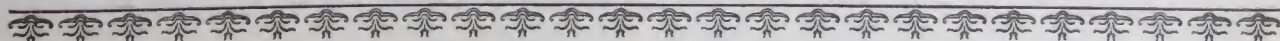
Chamberlin Sales and Service Branches

In the United States



ALLENTOWN, PA.....	627 Turner Street	MONTGOMERY, ALA.....	Vandiver Building
ATLANTIC CITY, N. J.....	13 So. North Carolina Avenue	NEW HAVEN, CONN.....	152 Temple Street
ATLANTA, GA.....	301 Builders Exchange Building	NEW ORLEANS, LA.....	1909 Bordeaux
BALTIMORE, MD.....	404 St. Paul Place	NEW YORK, N. Y.....	305 E. 43rd Street
BINGHAMPTON, N. Y.....	450 O'Neil Building	NORFOLK, VA.....	630 W. 34th Street
BOSTON, MASS.....	134 Congress Street	OKLAHOMA CITY, OKLA.....	901 Braniff Building
BUFFALO, N. Y.....	300 Sidway Building	OMAHA, NEBR.....	709 So. 24th Street
BUTTE, MONTANA.....	214 Metals Bank Building	PHILADELPHIA, PA.....	127 N. 18th Street
CAMDEN, N. J.....	106 North Sixth Street	PITTSBURGH, PA.....	2405-07 Boulevard of the Allies
CEDAR RAPIDS, IOWA.....	121 Second Street	PLAINFIELD, N. J.....	106 Depot Park
CHICAGO, ILL.....	704-06 So. Dearborn Street	PORTLAND, ORE.....	335 E. Main Street
CINCINNATI, OHIO.....	20 Pickering Building	POUGHKEEPSIE, N. Y.....	25 Cannon Street
CLEVELAND, OHIO.....	2010 E. 46th Street	PROVIDENCE, R. I.....	209 R. I. Hospital Trust Building
COLUMBUS, OHIO.....	1249 No. Fifth Street	RALEIGH, N. C.....	523 N. Person Street
DALLAS, TEX.....	1301 Young Street	READING, PA.....	300 Baer Building
DAYTON, OHIO.....	Reibold Building Annex	RICHMOND, VA.....	121 No. Third Street
DENVER, COLO.....	619 E. 13th Avenue	ROCHESTER, N. Y.....	206 Central Trust Building
DES MOINES, IOWA.....	517 Fifth Avenue	SACRAMENTO, CALIF.....	910 Ninth Street
DETROIT, MICH.....	1644 Lafayette Boulevard	SALT LAKE CITY, UTAH.....	45 E. Broadway
DULUTH, MINN.....	302 Manhattan Building	SAN DIEGO, CALIF.....	1308 Fifth Street
ERIE, PA.....	25 Metz Street	SAN ANTONIO, TEX.....	Loyosa Hotel Building
FLINT, MICH.....	1308½ Root Street	SAN FRANCISCO, CALIF.....	693 Mission Street
FORT WAYNE, IND.....	719 Archer Avenue	SCHENECTADY, N. Y.....	147 Jay Street
GRAND RAPIDS, MICH.....	246 Division, N. E.	SEATTLE, WASH.....	1733 Westlake, No.
GREEN BAY, WIS.....	1031 Grignon Street	SYDNEY, OHIO.....	Sydney, Ohio
HARRISBURG, PA.....	425 So. 13th Street	SOUTH BEND, IND.....	508 Dean Building
HARTFORD, CONN.....	45 Gold Street	SPRINGFIELD, MASS.....	25 Harrison Avenue
HOUSTON, TEX.....	413½ Fannin Street	ST. LOUIS, MO.....	4230 Olive Street
INDIANAPOLIS, IND.....	423-4 Occidental Building	ST. PAUL, MINN.....	682 Endicott Building
KALAMAZOO, MICH.....	214 Pratt Building	SYRACUSE, N. Y.....	207 E. Jefferson Street
KANSAS CITY, MO.....	3121 Main Street	TACOMA, WASH.....	1533 Dock Street
LACONIA, N. H.....	635 Main Street	TERRE HAUTE, IND.....	125 So. 7th Street
LANCASTER, PA.....	242 W. King Street	TRENTON, N. J.....	207 Fitzcharles Building
LANSING, MICH.....	212 Tussing Building	WASHINGTON, D. C.....	916 New York Avenue
LINCOLN, NEBR.....	2508 Rathbone Road	WHITE PLAINS, N. Y.....	185 Main Street
LOS ANGELES, CALIF.....	3203 W. 6th Street	WICHITA, KANS.....	502 Union National Bank Building
LOUISVILLE, KY.....	1925 So. Third Street	WILKES-BARRE, PA.....	Miners Bank Building
MEMPHIS, TENN.....	300 Empire Building	WILMINGTON, DELAWARE.....	1602 Union Street
MILWAUKEE, WIS.....	456 Broadway	WORCESTER, MASS.....	306 Main Street
MINNEAPOLIS, MINN.....	210 So. 10th Street	YOUNGSTOWN, OHIO.....	2912 Hillman Street

Factories: Detroit, Mich. and Peru, Ill.



Distribution of the in the United States

Atlantic Coast		Pacific Coast	
Alabama	100	California	100
Georgia	100	Washington	100
Florida	100	Oregon	100
South Carolina	100	Idaho	100
North Carolina	100	Montana	100
Virginia	100	Wyoming	100
West Virginia	100	Utah	100
Maryland	100	Arizona	100
Delaware	100	New Mexico	100
Pennsylvania	100	Colorado	100
Ohio	100	Nevada	100
Indiana	100	California	100
Illinois	100	Washington	100
Michigan	100	Oregon	100
Wisconsin	100	Idaho	100
Minnesota	100	Montana	100
North Dakota	100	Wyoming	100
South Dakota	100	Utah	100
Nebraska	100	Arizona	100
Kansas	100	New Mexico	100
Oklahoma	100	Colorado	100
Missouri	100	Nevada	100
Arkansas	100	California	100
Louisiana	100	Washington	100
Mississippi	100	Oregon	100
Alabama	100	Idaho	100
Georgia	100	Montana	100
Florida	100	Wyoming	100
South Carolina	100	Utah	100
North Carolina	100	Arizona	100
Virginia	100	New Mexico	100
West Virginia	100	Colorado	100
Maryland	100	Nevada	100
Delaware	100	California	100
Pennsylvania	100	Washington	100
Ohio	100	Oregon	100
Indiana	100	Idaho	100
Illinois	100	Montana	100
Michigan	100	Wyoming	100
Wisconsin	100	Utah	100
Minnesota	100	Arizona	100
North Dakota	100	New Mexico	100
South Dakota	100	Colorado	100
Nebraska	100	Nevada	100
Kansas	100	California	100
Oklahoma	100	Washington	100
Missouri	100	Oregon	100
Arkansas	100	Idaho	100
Louisiana	100	Montana	100
Mississippi	100	Wyoming	100
Alabama	100	Utah	100
Georgia	100	Arizona	100
Florida	100	New Mexico	100
South Carolina	100	Colorado	100
North Carolina	100	Nevada	100
Virginia	100	California	100
West Virginia	100	Washington	100
Maryland	100	Oregon	100
Delaware	100	Idaho	100
Pennsylvania	100	Montana	100
Ohio	100	Wyoming	100
Indiana	100	Utah	100
Illinois	100	Arizona	100
Michigan	100	New Mexico	100
Wisconsin	100	Colorado	100
Minnesota	100	Nevada	100
North Dakota	100	California	100
South Dakota	100	Washington	100
Nebraska	100	Oregon	100
Kansas	100	Idaho	100
Oklahoma	100	Montana	100
Missouri	100	Wyoming	100
Arkansas	100	Utah	100
Louisiana	100	Arizona	100
Mississippi	100	New Mexico	100
Alabama	100	Colorado	100
Georgia	100	Nevada	100
Florida	100	California	100
South Carolina	100	Washington	100
North Carolina	100	Oregon	100
Virginia	100	Idaho	100
West Virginia	100	Montana	100
Maryland	100	Wyoming	100
Delaware	100	Utah	100
Pennsylvania	100	Arizona	100
Ohio	100	New Mexico	100
Indiana	100	Colorado	100
Illinois	100	Nevada	100
Michigan	100	California	100
Wisconsin	100	Washington	100
Minnesota	100	Oregon	100
North Dakota	100	Idaho	100
South Dakota	100	Montana	100
Nebraska	100	Wyoming	100
Kansas	100	Utah	100
Oklahoma	100	Arizona	100
Missouri	100	New Mexico	100
Arkansas	100	Colorado	100
Louisiana	100	Nevada	100
Mississippi	100	California	100
Alabama	100	Washington	100
Georgia	100	Oregon	100
Florida	100	Idaho	100
South Carolina	100	Montana	100
North Carolina	100	Wyoming	100
Virginia	100	Utah	100
West Virginia	100	Arizona	100
Maryland	100	New Mexico	100
Delaware	100	Colorado	100
Pennsylvania	100	Nevada	100
Ohio	100	California	100
Indiana	100	Washington	100
Illinois	100	Oregon	100
Michigan	100	Idaho	100
Wisconsin	100	Montana	100
Minnesota	100	Wyoming	100
North Dakota	100	Utah	100
South Dakota	100	Arizona	100
Nebraska	100	New Mexico	100
Kansas	100	Colorado	100
Oklahoma	100	Nevada	100
Missouri	100	California	100
Arkansas	100	Washington	100
Louisiana	100	Oregon	100
Mississippi	100	Idaho	100
Alabama	100	Montana	100
Georgia	100	Wyoming	100
Florida	100	Utah	100
South Carolina	100	Arizona	100
North Carolina	100	New Mexico	100
Virginia	100	Colorado	100
West Virginia	100	Nevada	100
Maryland	100	California	100
Delaware	100	Washington	100
Pennsylvania	100	Oregon	100
Ohio	100	Idaho	100
Indiana	100	Montana	100
Illinois	100	Wyoming	100
Michigan	100	Utah	100
Wisconsin	100	Arizona	100
Minnesota	100	New Mexico	100
North Dakota	100	Colorado	100
South Dakota	100	Nevada	100
Nebraska	100	California	100
Kansas	100	Washington	100
Oklahoma	100	Oregon	100
Missouri	100	Idaho	100
Arkansas	100	Montana	100
Louisiana	100	Wyoming	100
Mississippi	100	Utah	100
Alabama	100	Arizona	100
Georgia	100	New Mexico	100
Florida	100	Colorado	100
South Carolina	100	Nevada	100
North Carolina	100	California	100
Virginia	100	Washington	100
West Virginia	100	Oregon	100
Maryland	100	Idaho	100
Delaware	100	Montana	100
Pennsylvania	100	Wyoming	100
Ohio	100	Utah	100
Indiana	100	Arizona	100
Illinois	100	New Mexico	100
Michigan	100	Colorado	100
Wisconsin	100	Nevada	100
Minnesota	100	California	100
North Dakota	100	Washington	100
South Dakota	100	Oregon	100
Nebraska	100	Idaho	100
Kansas	100	Montana	100
Oklahoma	100	Wyoming	100
Missouri	100	Utah	100
Arkansas	100	Arizona	100
Louisiana	100	New Mexico	100
Mississippi	100	Colorado	100
Alabama	100	Nevada	100
Georgia	100	California	100
Florida	100	Washington	100
South Carolina	100	Oregon	100
North Carolina	100	Idaho	100
Virginia	100	Montana	100
West Virginia	100	Wyoming	100
Maryland	100	Utah	100
Delaware	100	Arizona	100
Pennsylvania	100	New Mexico	100
Ohio	100	Colorado	100
Indiana	100	Nevada	100
Illinois	100	California	100
Michigan	100	Washington	100
Wisconsin	100	Oregon	100
Minnesota	100	Idaho	100
North Dakota	100	Montana	100
South Dakota	100	Wyoming	100
Nebraska	100	Utah	100
Kansas	100	Arizona	100
Oklahoma	100	New Mexico	100
Missouri	100	Colorado	100
Arkansas	100	Nevada	100
Louisiana	100	California	100
Mississippi	100	Washington	100
Alabama	100	Oregon	100
Georgia	100	Idaho	100
Florida	100	Montana	100
South Carolina	100	Wyoming	100
North Carolina	100	Utah	100
Virginia	100	Arizona	100
West Virginia	100	New Mexico	100
Maryland	100	Colorado	100
Delaware	100	Nevada	100
Pennsylvania	100	California	100
Ohio	100	Washington	100
Indiana	100	Oregon	100
Illinois	100	Idaho	100
Michigan	100	Montana	100
Wisconsin	100	Wyoming	100
Minnesota	100	Utah	100
North Dakota	100	Arizona	100
South Dakota	100	New Mexico	100
Nebraska	100	Colorado	100
Kansas	100	Nevada	100
Oklahoma	100	California	100
Missouri	100	Washington	100
Arkansas	100	Oregon	100
Louisiana	100	Idaho	100
Mississippi	100	Montana	100
Alabama	100	Wyoming	100
Georgia	100	Utah	100
Florida	100	Arizona	100
South Carolina	100	New Mexico	100
North Carolina	100	Colorado	100
Virginia	100	Nevada	100
West Virginia	100	California	100
Maryland	100	Washington	100
Delaware	100	Oregon	100
Pennsylvania	100	Idaho	100
Ohio	100	Montana	100
Indiana	100	Wyoming	100
Illinois	100	Utah	100
Michigan	100	Arizona	100
Wisconsin	100	New Mexico	100
Minnesota	100	Colorado	100
North Dakota	100	Nevada	100
South Dakota	100	California	100
Nebraska	100	Washington	100
Kansas	100	Oregon	100
Oklahoma	100	Idaho	100
Missouri	100	Montana	100
Arkansas	100	Wyoming	100
Louisiana	100	Utah	100
Mississippi	100	Arizona	100
Alabama	100	New Mexico	100
Georgia	100	Colorado	100
Florida	100	Nevada	100
South Carolina	100	California	100
North Carolina	100	Washington	100
Virginia	100	Oregon	100
West Virginia	100	Idaho	100
Maryland	100	Montana	100
Delaware	100	Wyoming	100
Pennsylvania	100	Utah	100
Ohio	100	Arizona	100
Indiana	100	New Mexico	100
Illinois	100	Colorado	100
Michigan	100	Nevada	100
Wisconsin	100	California	100
Minnesota	100	Washington	100
North Dakota	100	Oregon	100
South Dakota	100	Idaho	100
Nebraska	100	Montana	100
Kansas	100	Wyoming	100
Oklahoma	100	Utah	100
Missouri	100	Arizona	100
Arkansas	100	New Mexico	100
Louisiana	100	Colorado	100
Mississippi	100	Nevada	100
Alabama	100	California	100
Georgia	100	Washington	100
Florida	100	Oregon	100
South Carolina	100	Idaho	100
North Carolina	100	Montana	100
Virginia	100	Wyoming	100
West Virginia	100	Utah	100
Maryland	100	Arizona	100
Delaware	100	New Mexico	100
Pennsylvania	100	Colorado	100
Ohio	100	Nevada	100
Indiana	100	California	100
Illinois	100	Washington	100
Michigan	100	Oregon	100
Wisconsin	100	Idaho	100
Minnesota	100	Montana	100
North Dakota	100	Wyoming	100
South Dakota	100	Utah	100
Nebraska	100	Arizona	100
Kansas	100	New Mexico	100
Oklahoma	100	Colorado	100
Missouri	100	Nevada	100
Arkansas	100	California	100
Louisiana	100	Washington	100
Mississippi	100	Oregon	100
Alabama	100	Idaho	100
Georgia	100	Montana	100
Florida	100	Wyoming	100
South Carolina	100	Utah	100
North Carolina	100	Arizona	100
Virginia	100	New Mexico	100
West Virginia	100	Colorado	100
Maryland	100	Nevada	100
Delaware	100	California	100
Pennsylvania	100	Washington	100
Ohio	100	Oregon	100
Indiana	100	Idaho	100
Illinois	100	Montana	100
Michigan	100	Wyoming	100
Wisconsin	100	Utah	100
Minnesota	100	Arizona	100
North Dakota	100	New Mexico	100
South Dakota	100	Colorado	100
Nebraska	100	Nevada	100
Kansas	100	California	100
Oklahoma	100	Washington	100
Missouri	100	Oregon	100
Arkansas	100	Idaho	100
Louisiana	100	Montana	100
Mississippi	100	Wyoming	100
Alabama	100	Utah	100
Georgia	100	Arizona	100
Florida	100	New Mexico	100
South Carolina	100	Colorado	100
North Carolina	100	Nevada	100
Virginia	100	California	100
West Virginia	100	Washington	100
Maryland	100	Oregon	100
Delaware	100	Idaho	100
Pennsylvania	100	Montana	100
Ohio	100	Wyoming	100
Indiana	100	Utah	100
Illinois	100	Arizona	100
Michigan	100	New Mexico	100
Wisconsin	100	Colorado	100
Minnesota	100	Nevada	100
North Dakota	100	California	100
South Dakota	100	Washington	100
Nebraska	100	Oregon	100
Kansas	100	Idaho	100
Oklahoma	100	Montana	100
Missouri	100	Wyoming	100
Arkansas	100	Utah	100
Louisiana	100	Arizona	